

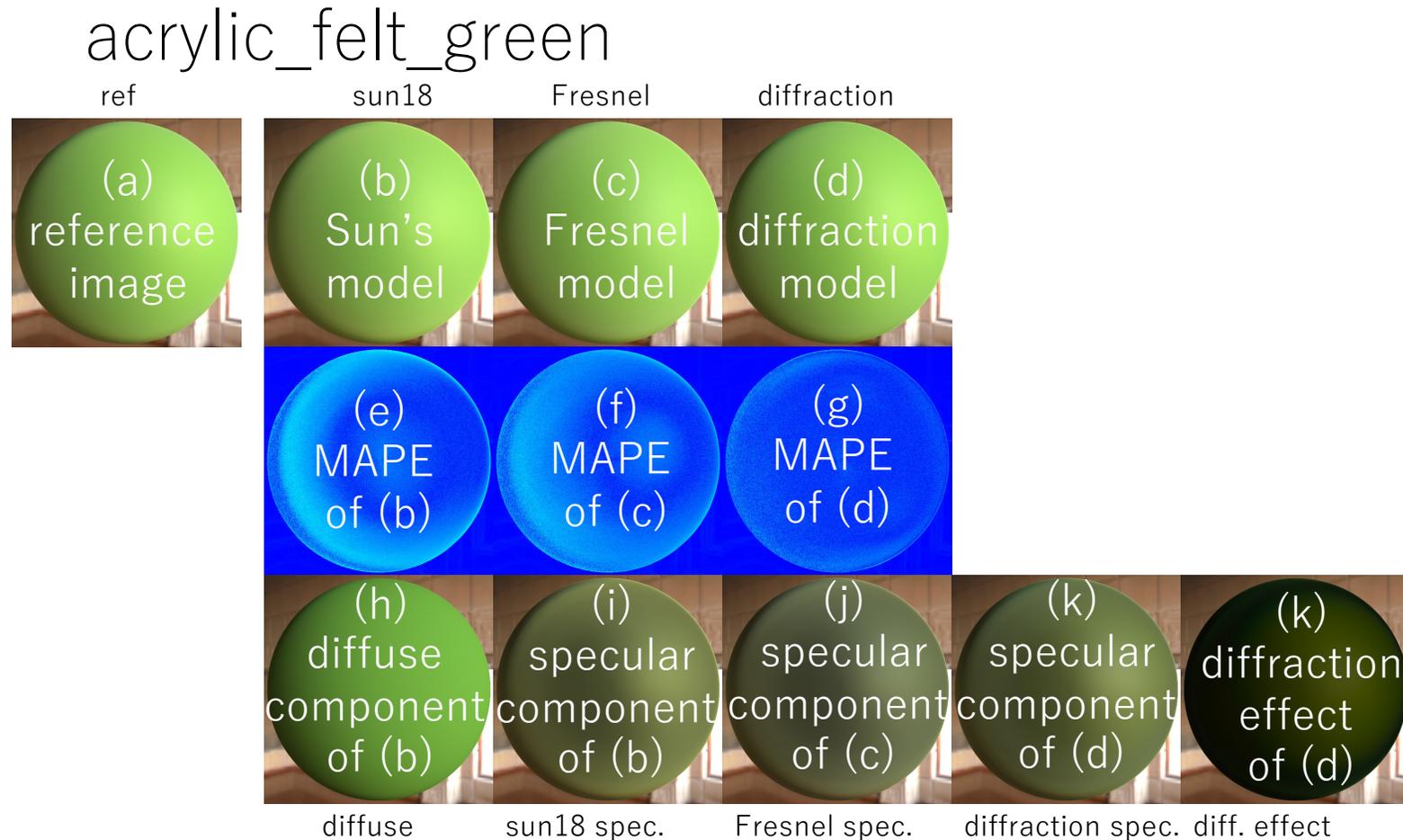
Supplemental Material

submission id 11

submitted to Graphics Interface 2024

README

- This supplemental material includes rendering comparisons between Sun's model, Fresnel model, and diffraction model.



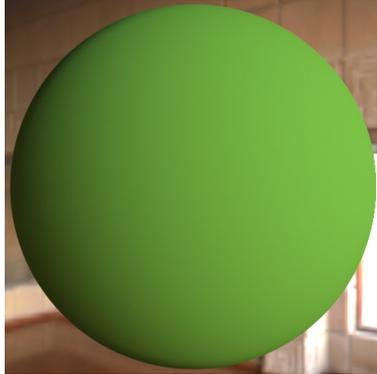
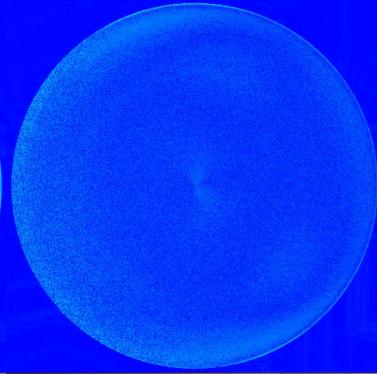
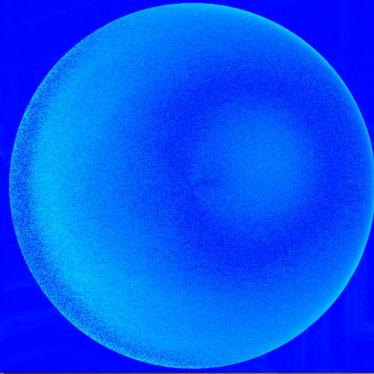
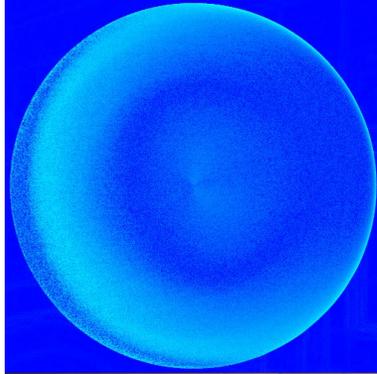
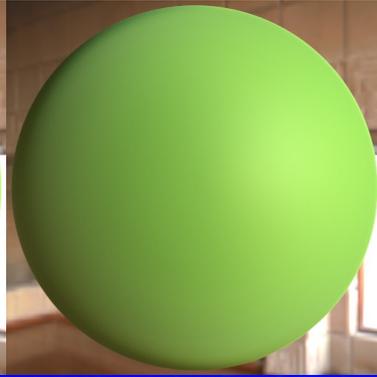
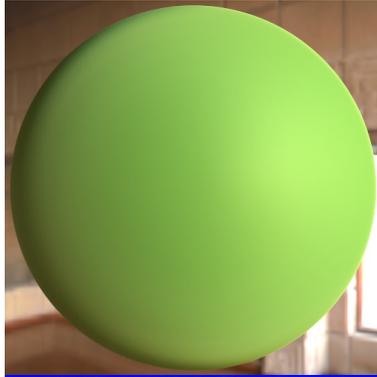
acrylic_felt_green

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

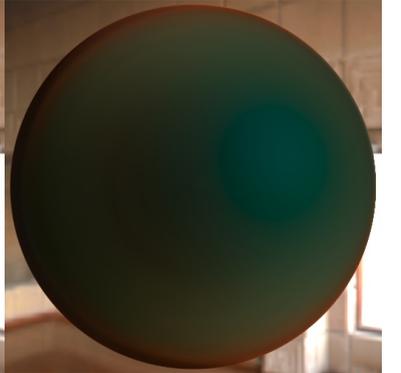
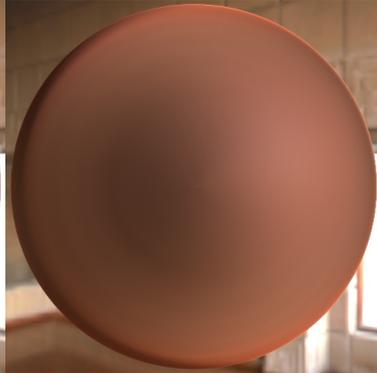
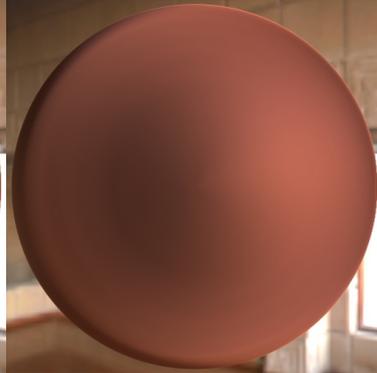
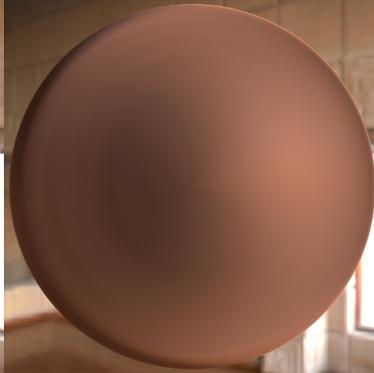
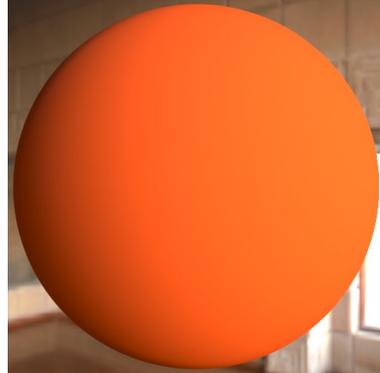
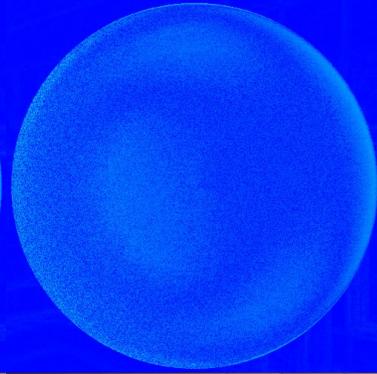
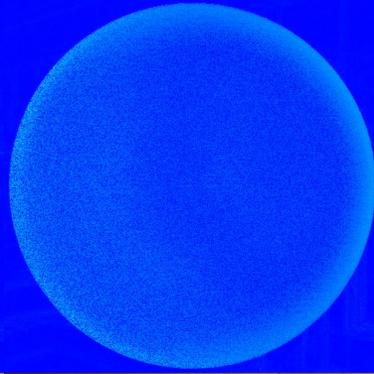
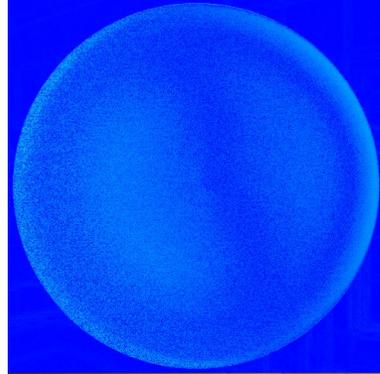
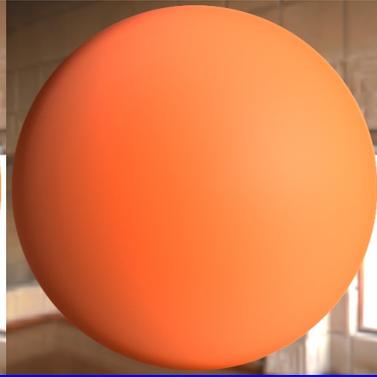
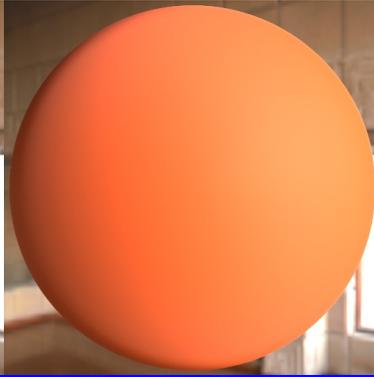
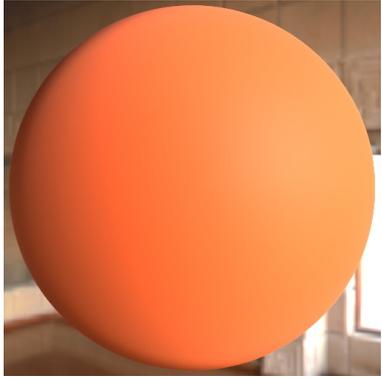
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ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

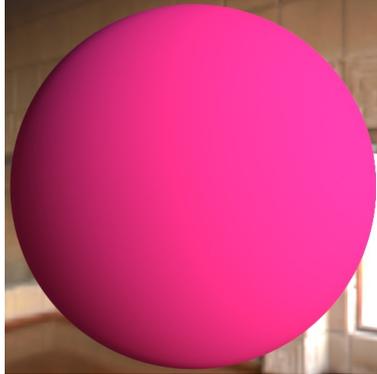
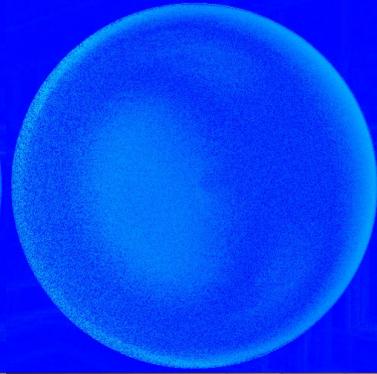
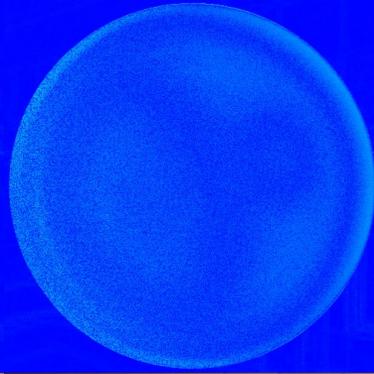
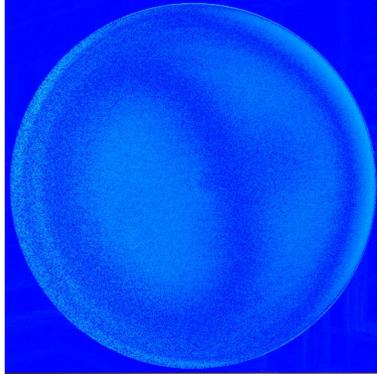
acrylic_felt_pink

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

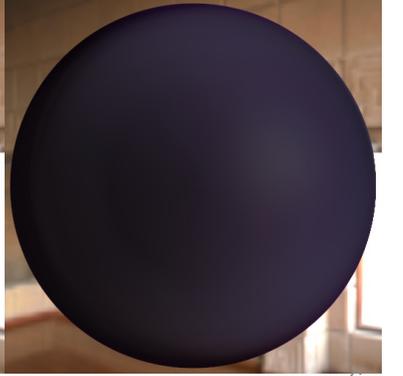
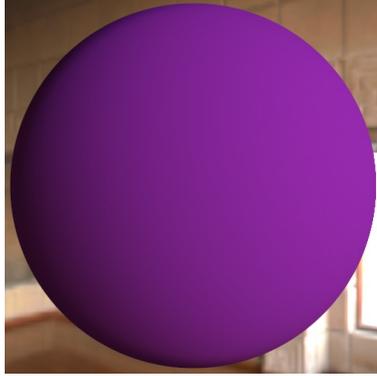
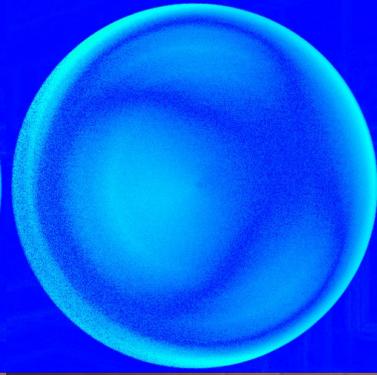
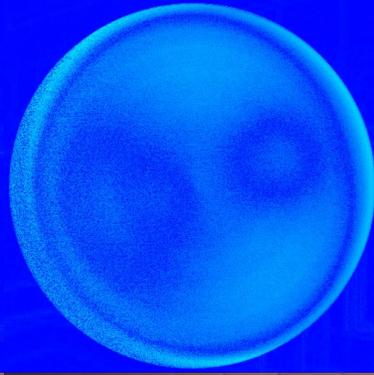
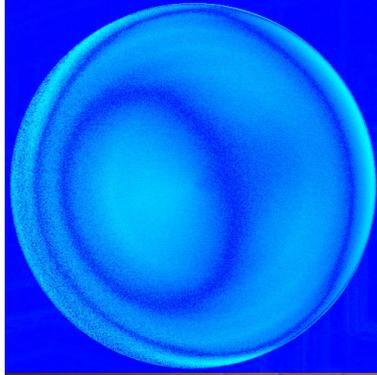
acrylic_felt_purple

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

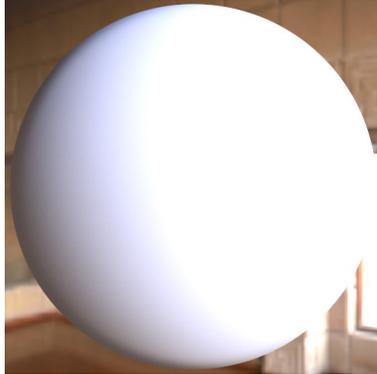
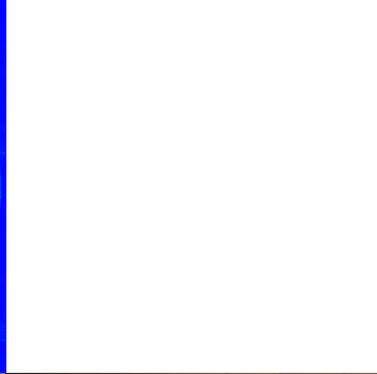
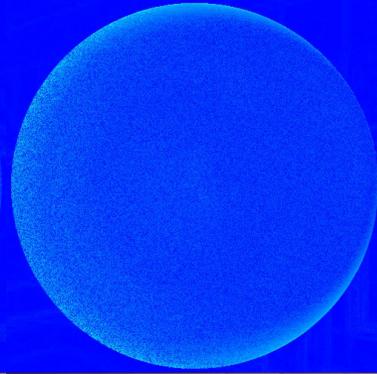
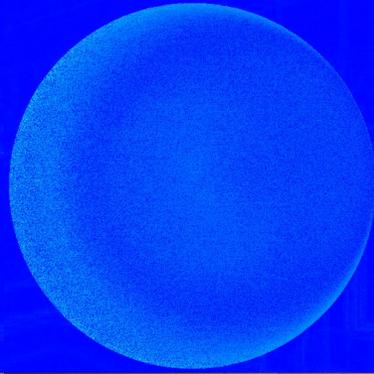
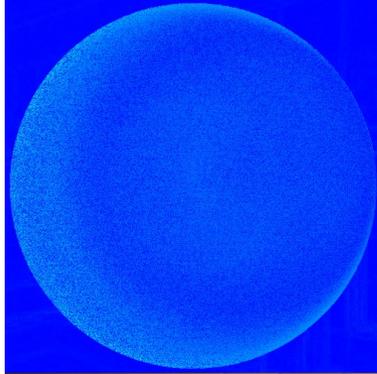
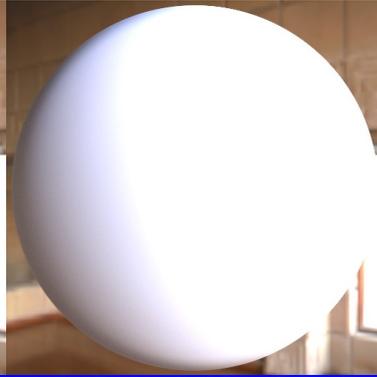
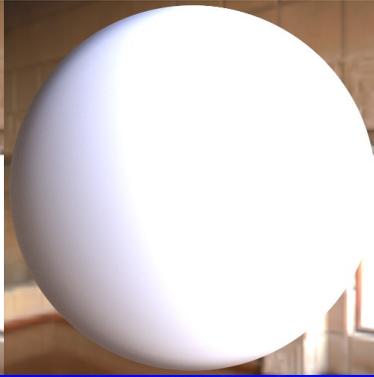
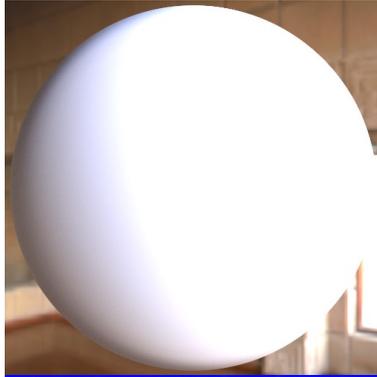
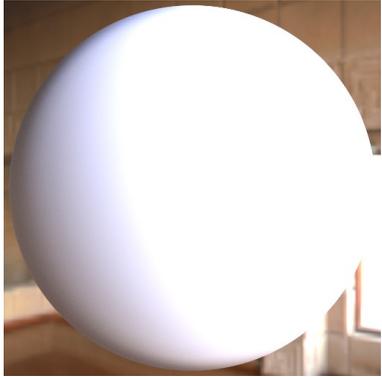
acrylic_felt_white

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

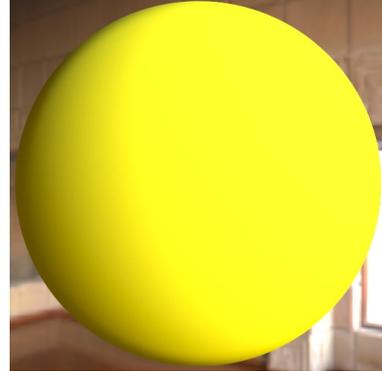
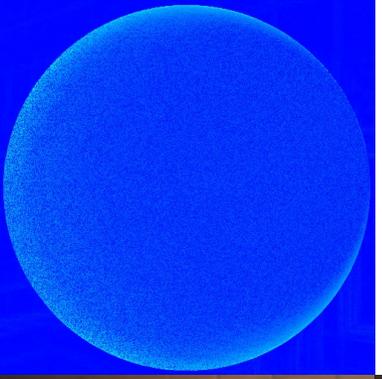
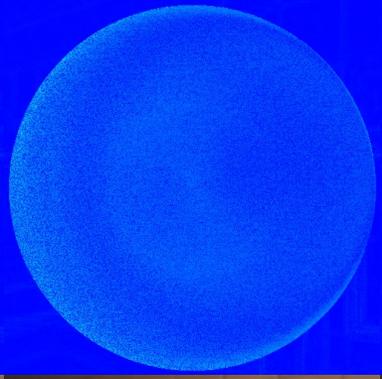
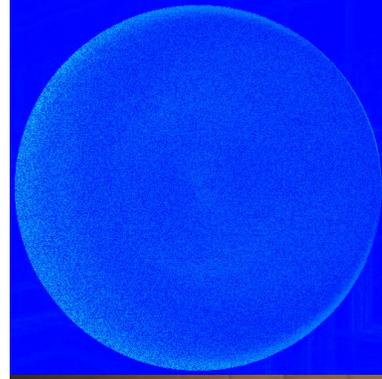
acrylic_felt_yellow

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

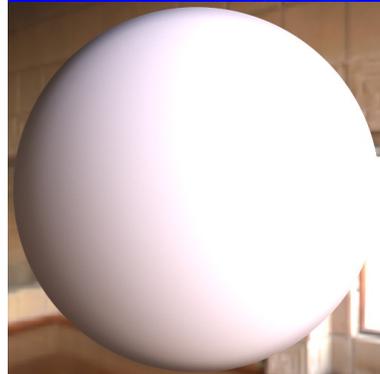
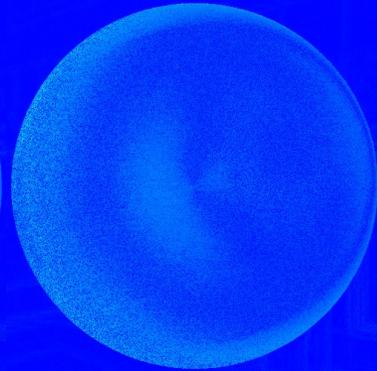
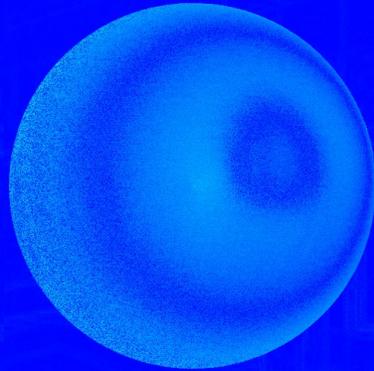
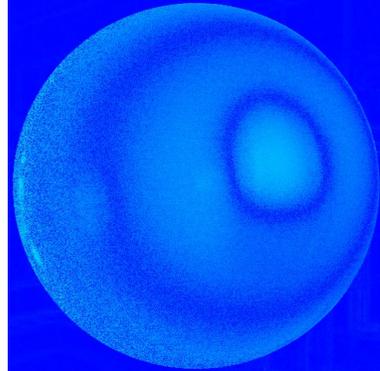
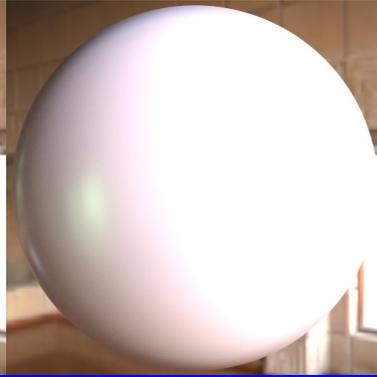
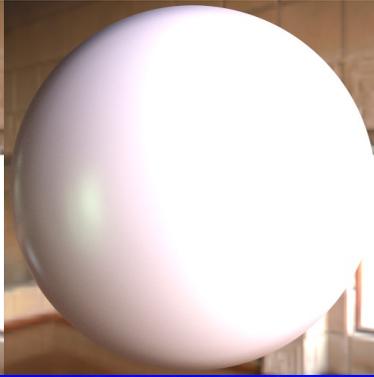
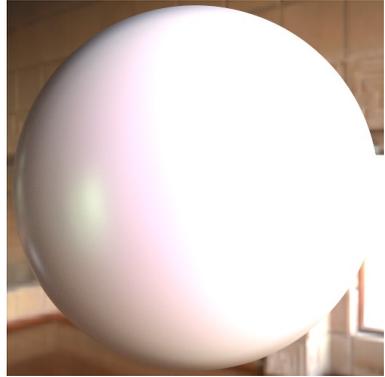
aurora_white

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

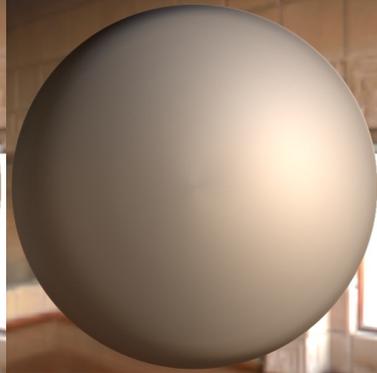
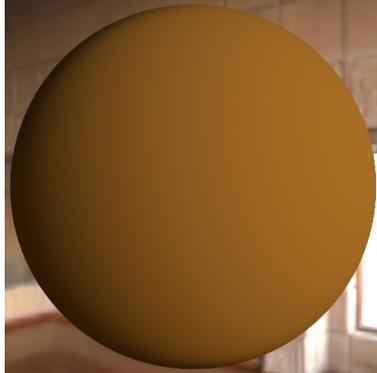
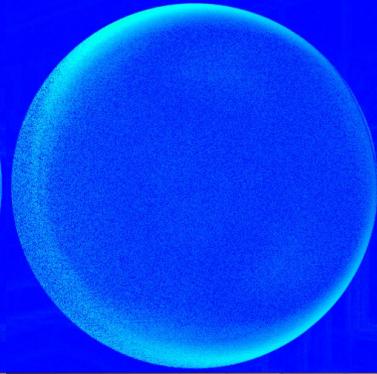
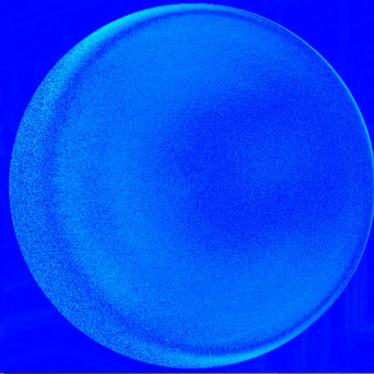
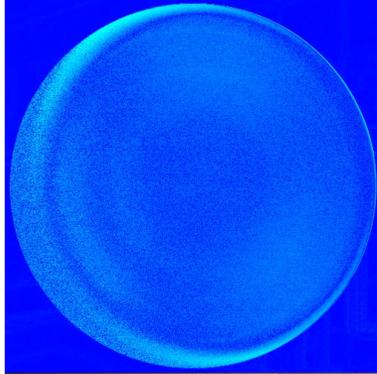
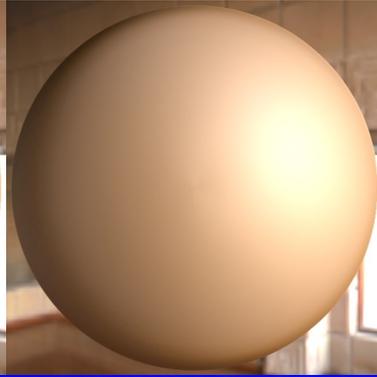
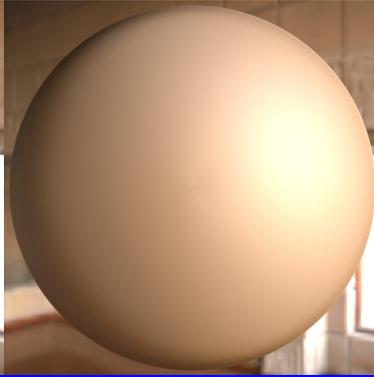
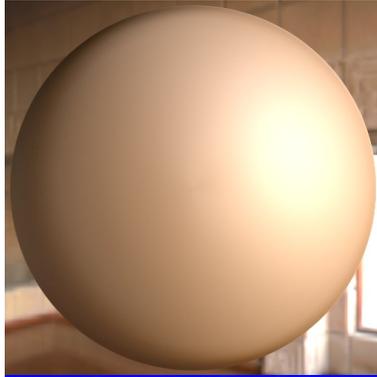
cardboard

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

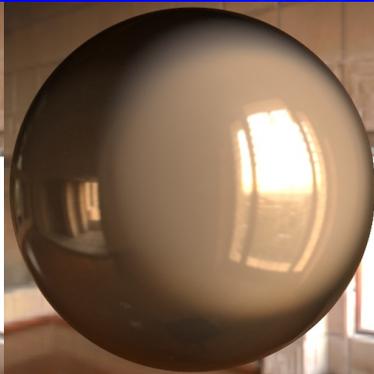
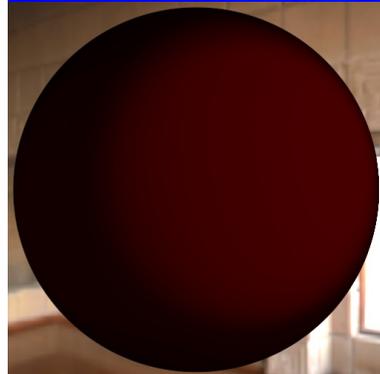
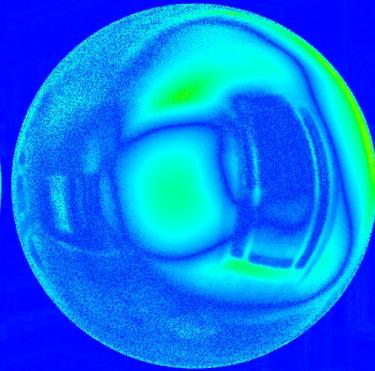
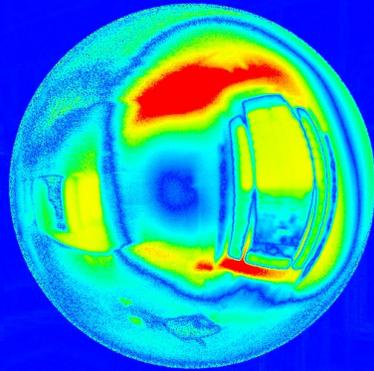
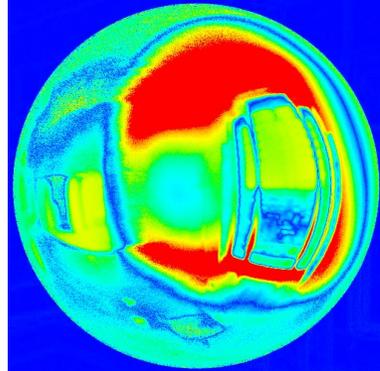
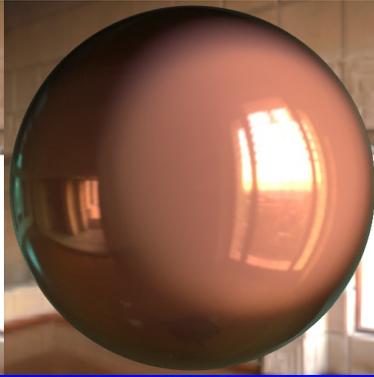
cc_amber_citrine

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

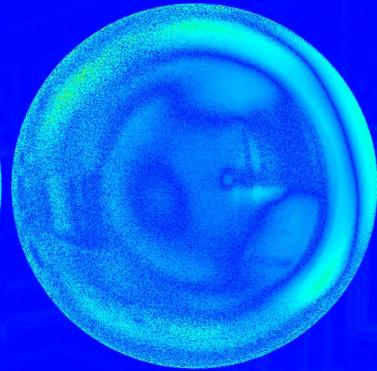
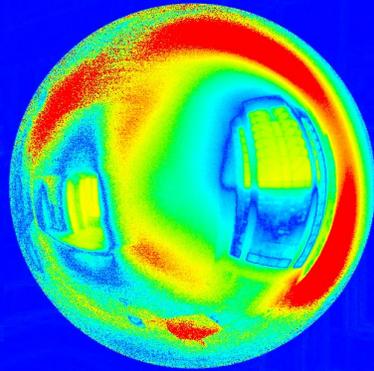
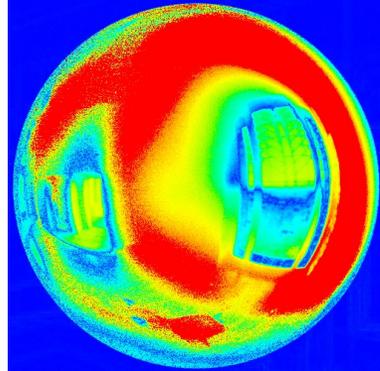
cc_blue_agat

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

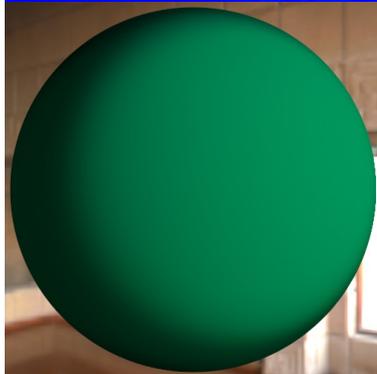
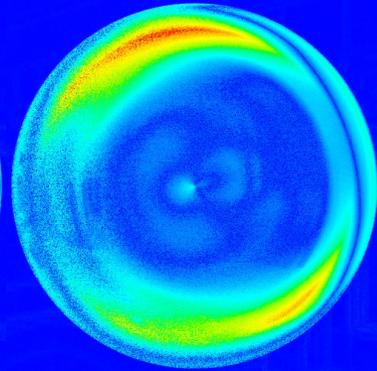
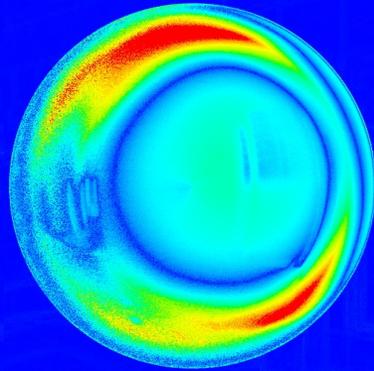
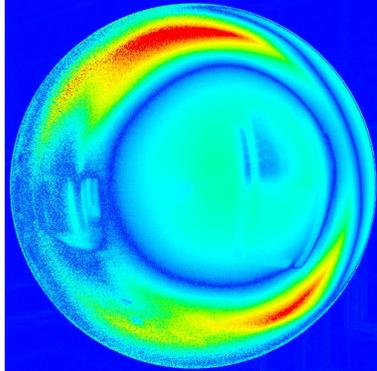
cc_green_malachite

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

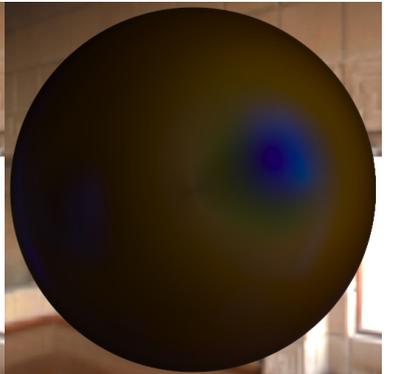
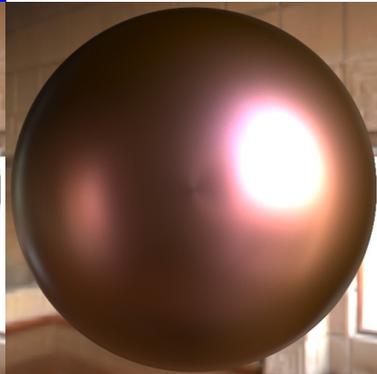
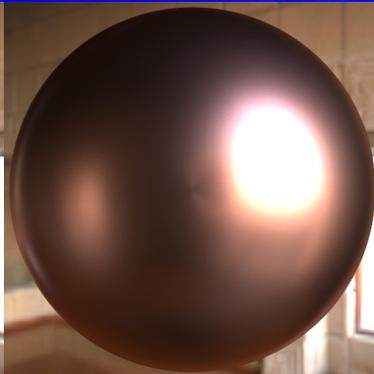
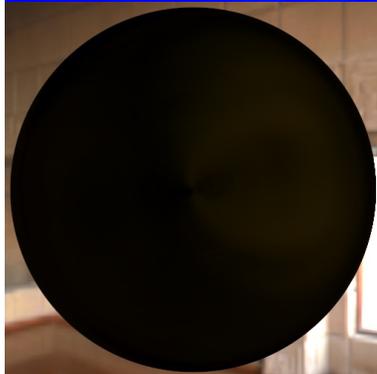
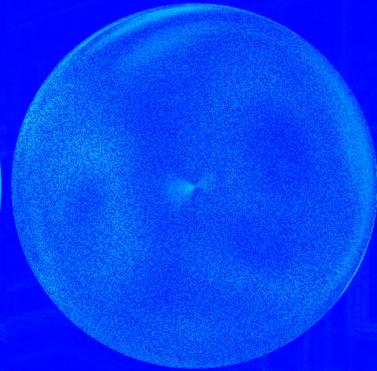
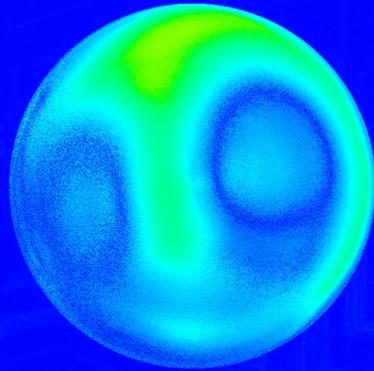
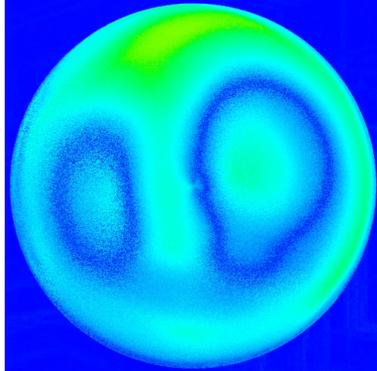
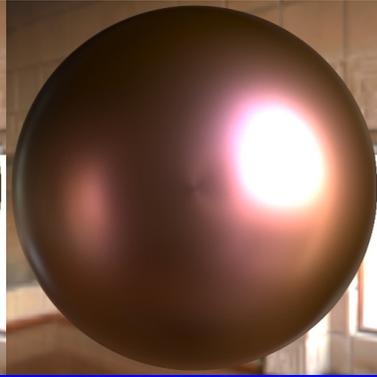
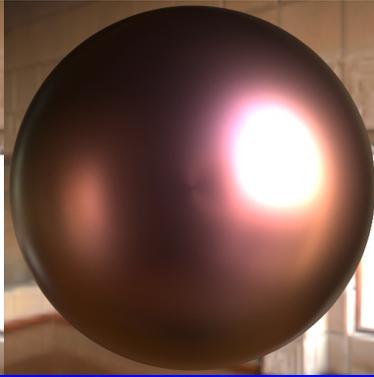
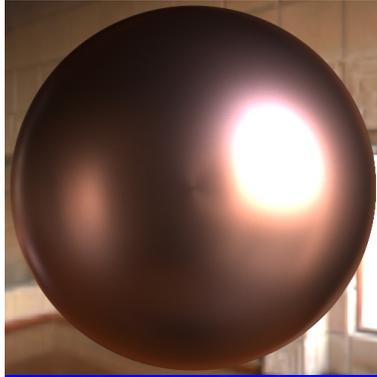
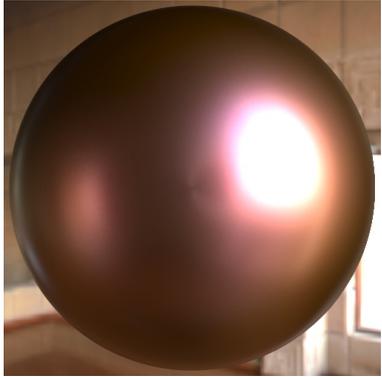
cc_ibiza_sunset

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

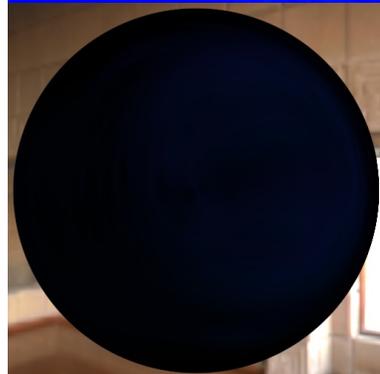
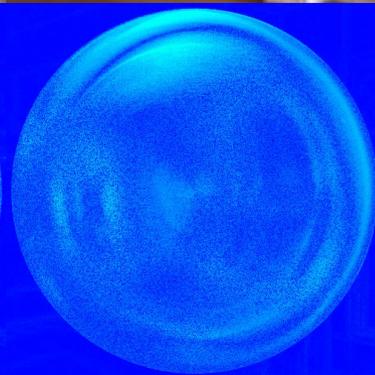
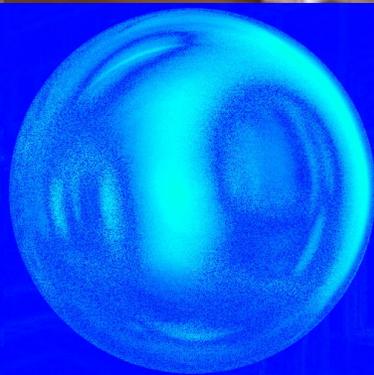
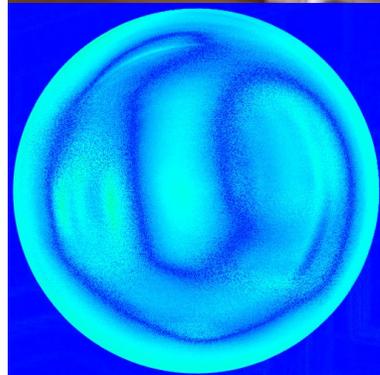
cc_iris_purple_gem

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

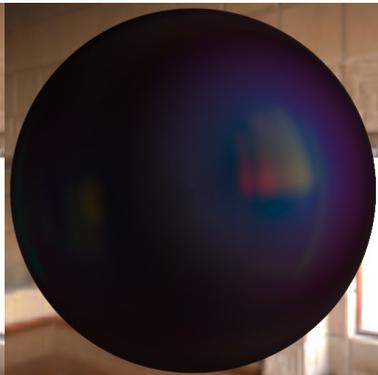
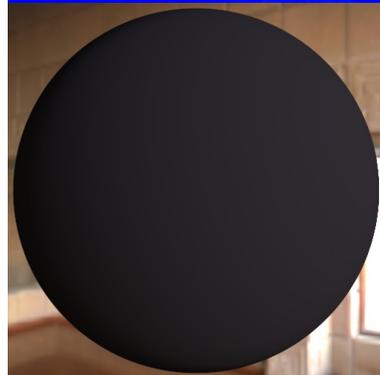
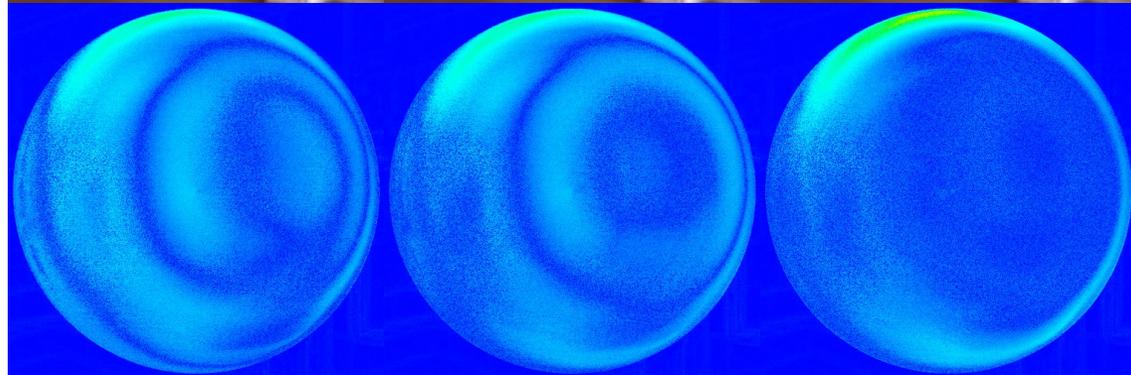
cc_northern_aurora

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

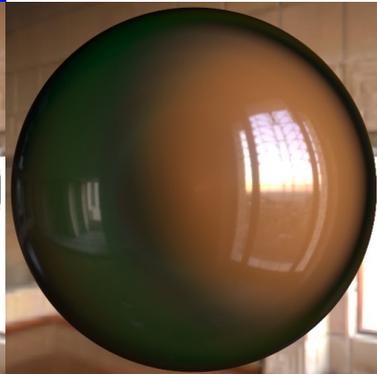
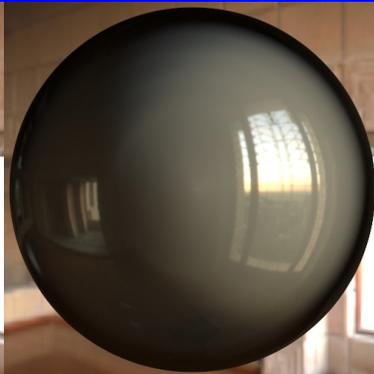
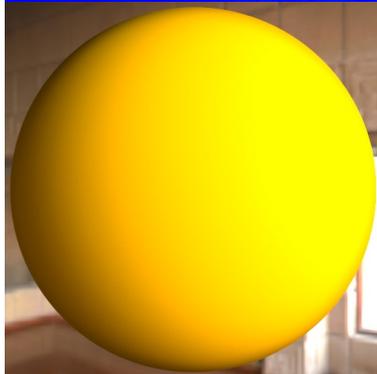
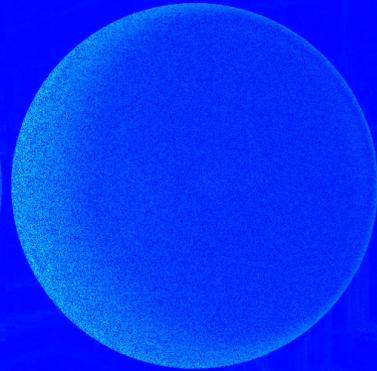
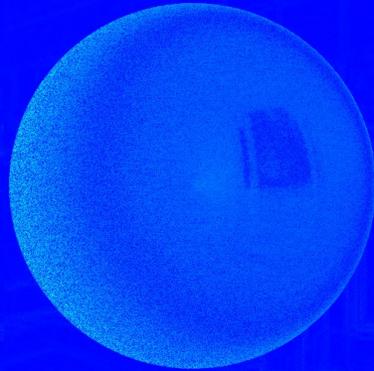
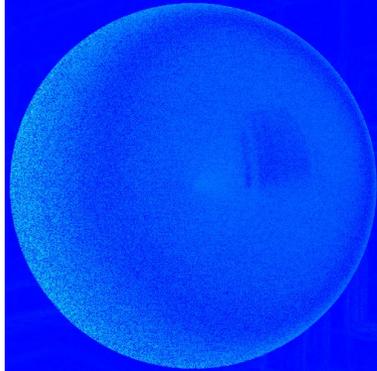
cg_sunflower

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

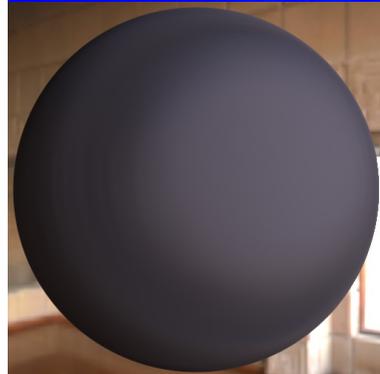
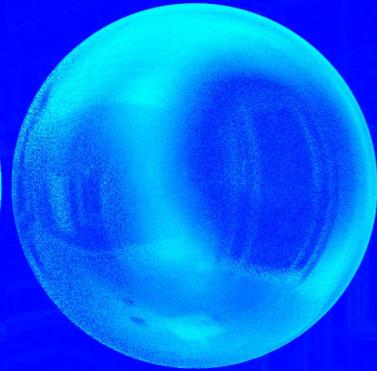
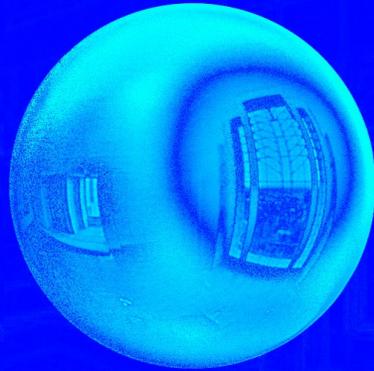
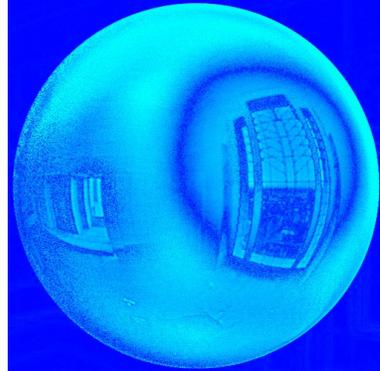
chm_light_blue

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

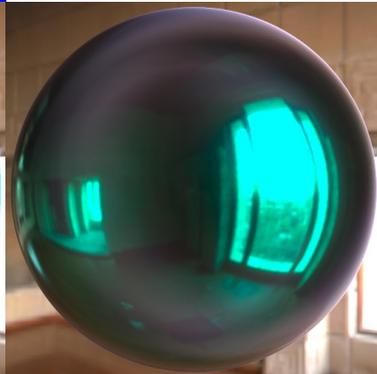
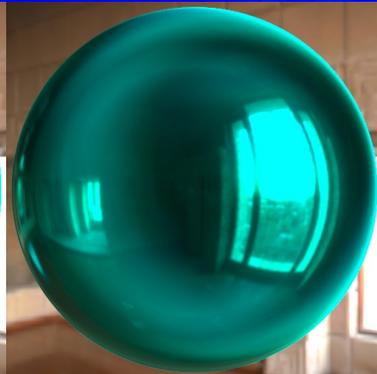
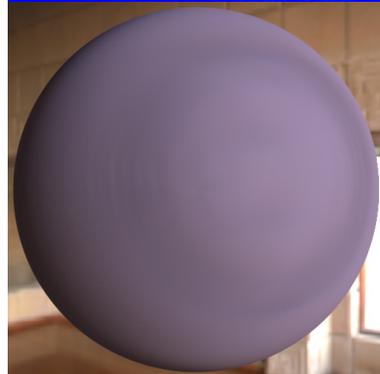
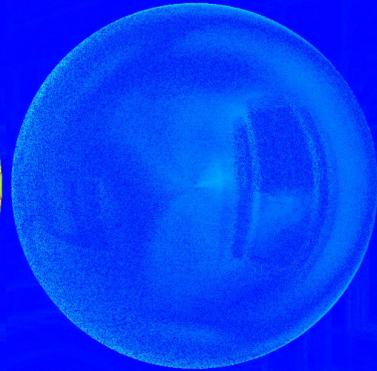
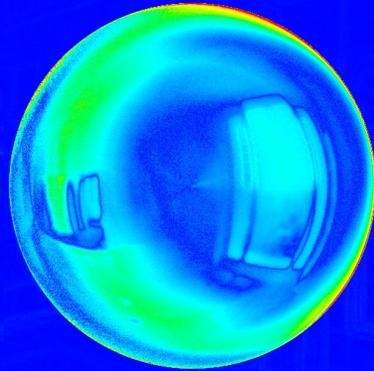
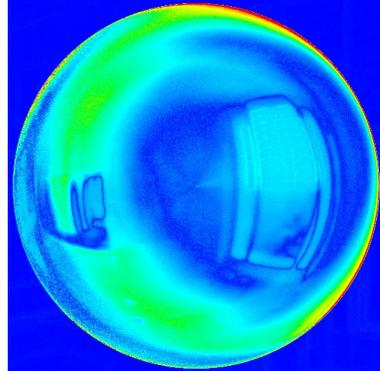
chm_mint

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

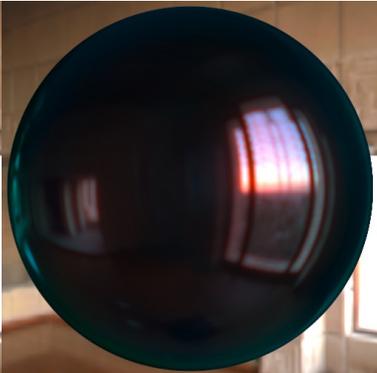
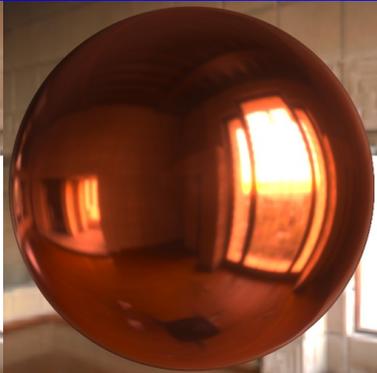
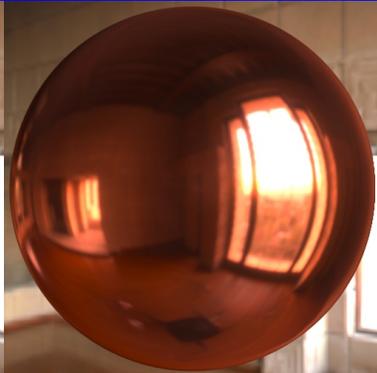
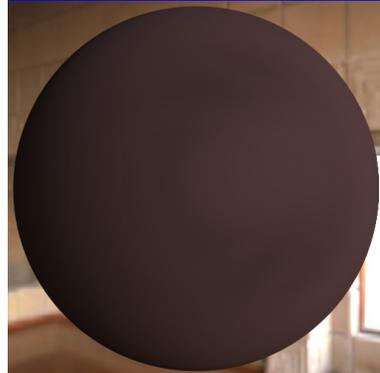
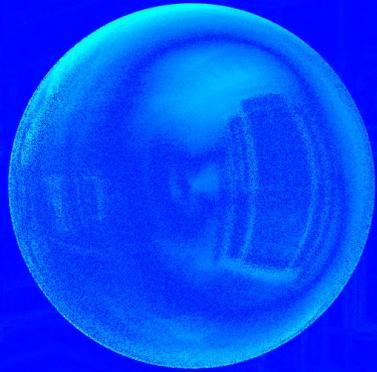
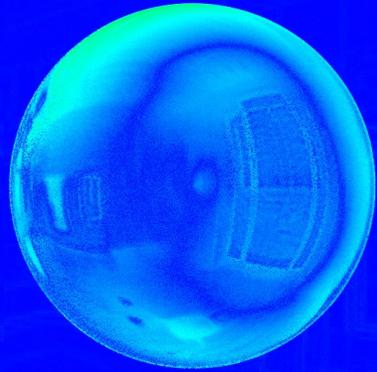
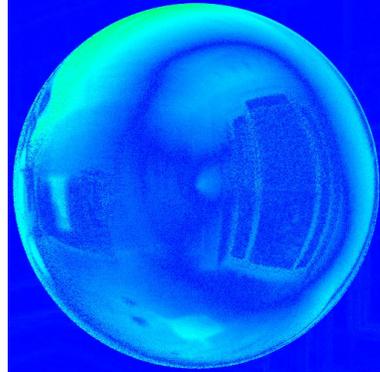
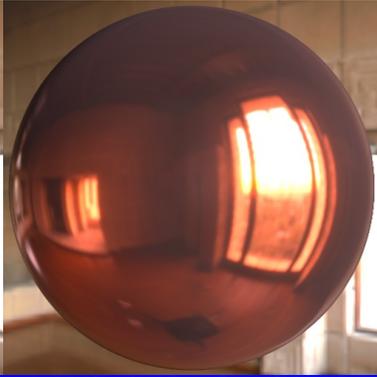
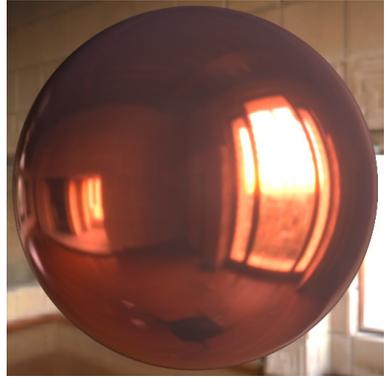
chm_orange

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

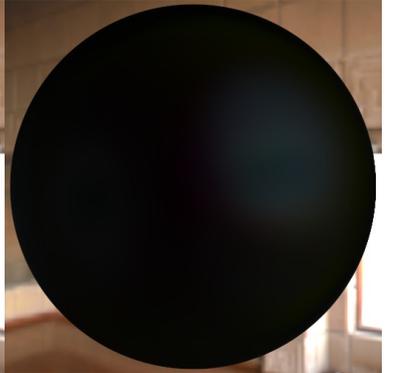
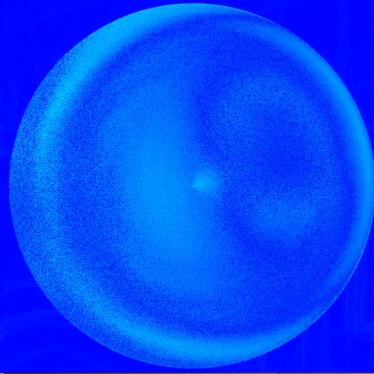
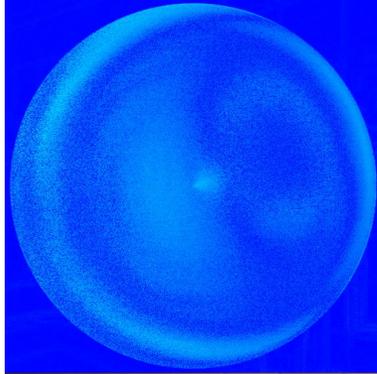
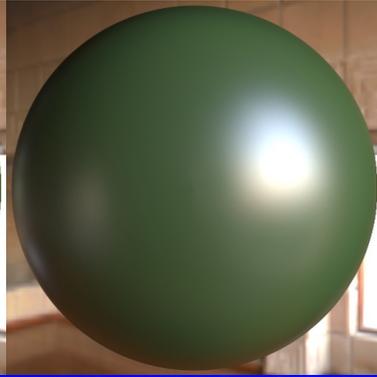
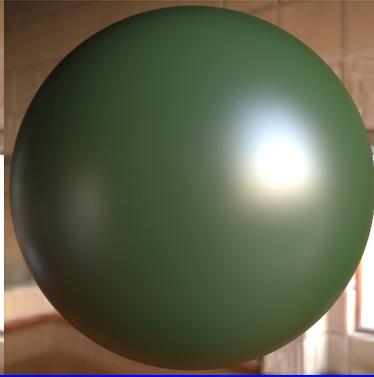
cm_military_green

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

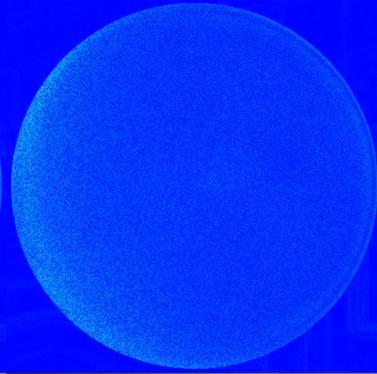
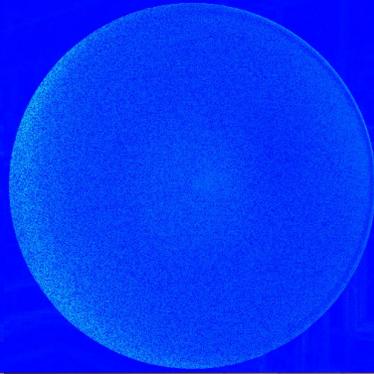
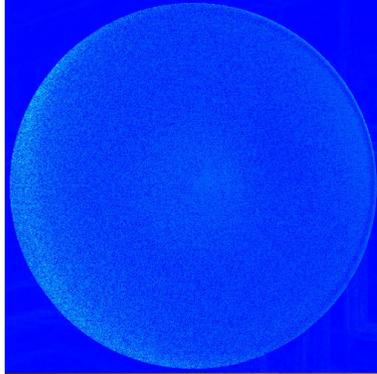
cm_toxic_green

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

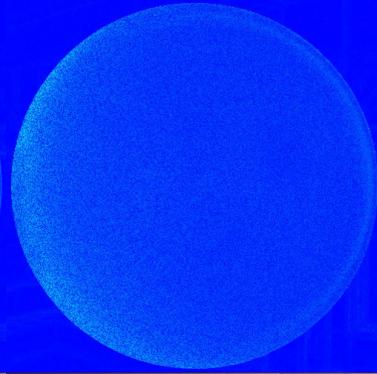
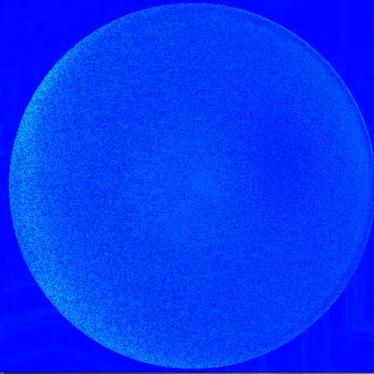
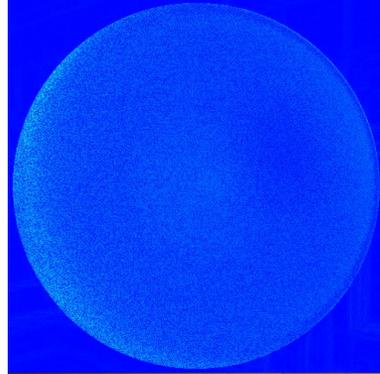
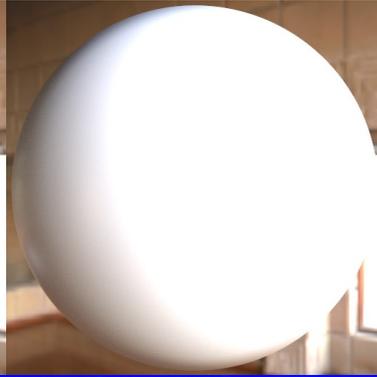
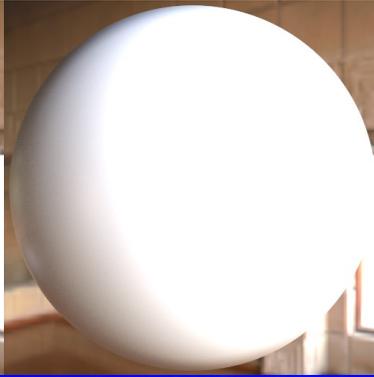
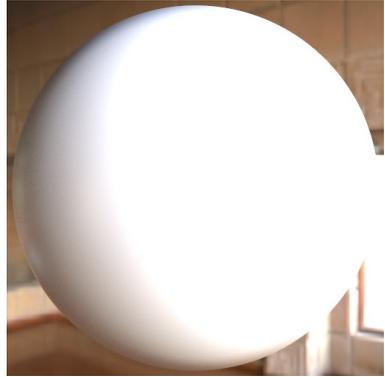
cm_white

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

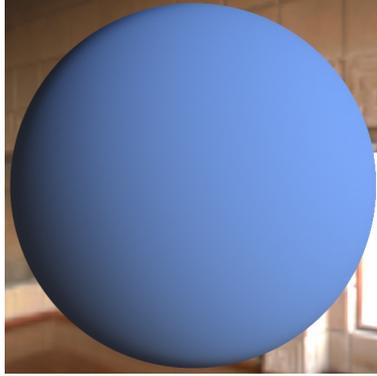
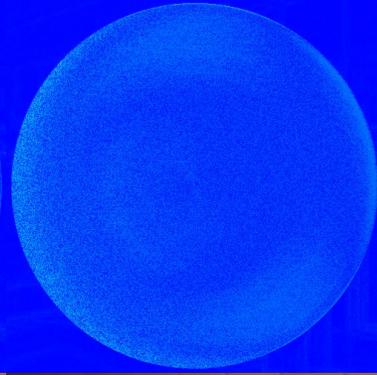
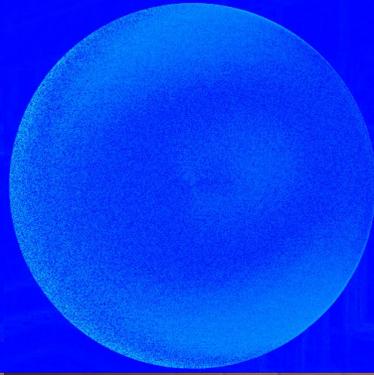
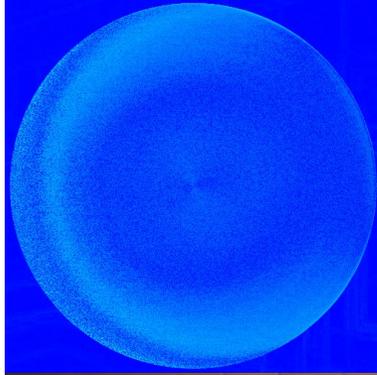
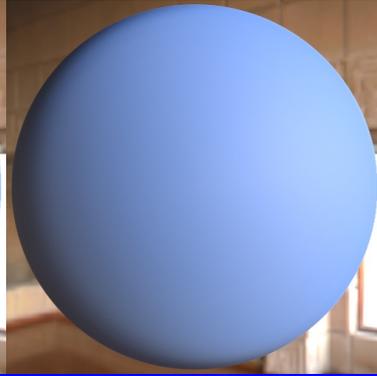
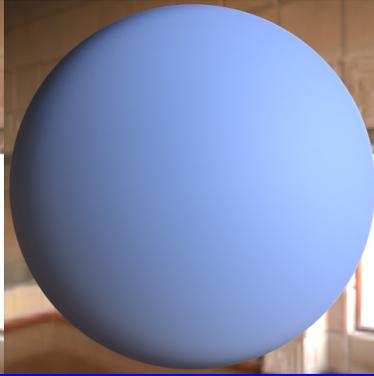
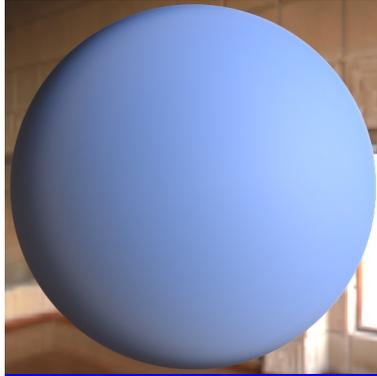
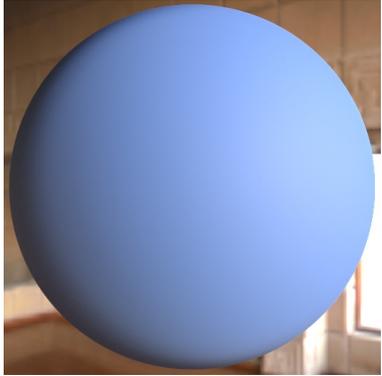
colodur_azure_4e

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

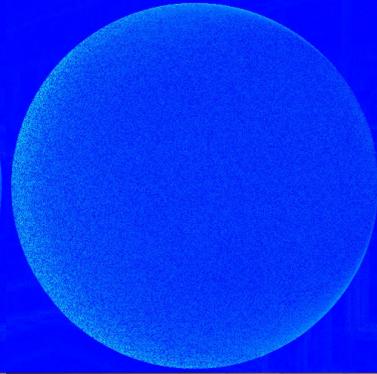
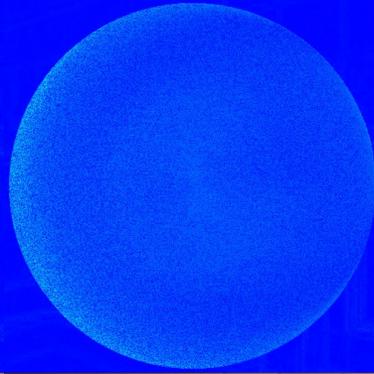
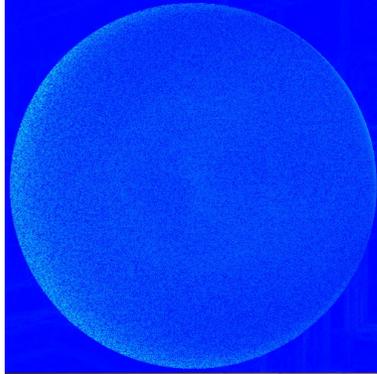
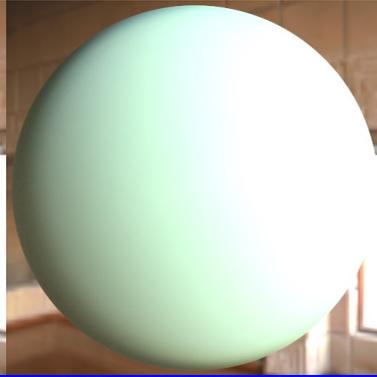
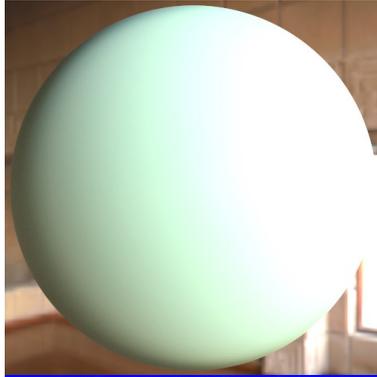
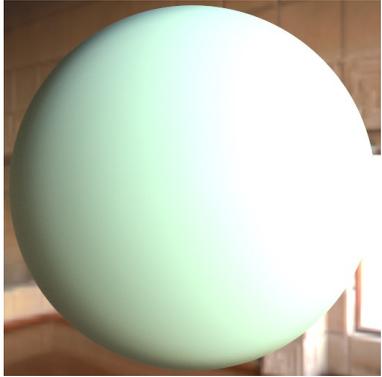
colodur_connemara_4c

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

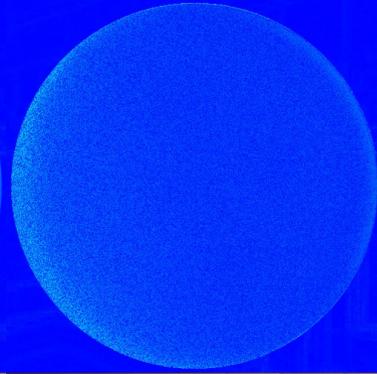
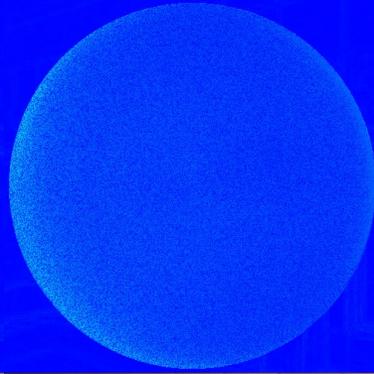
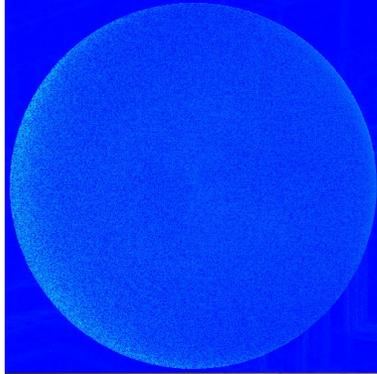
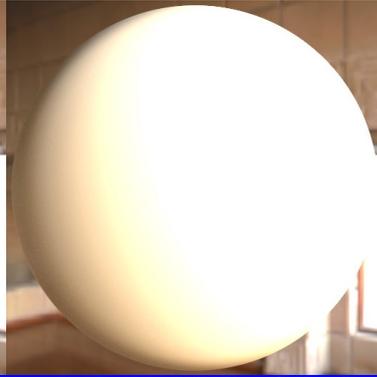
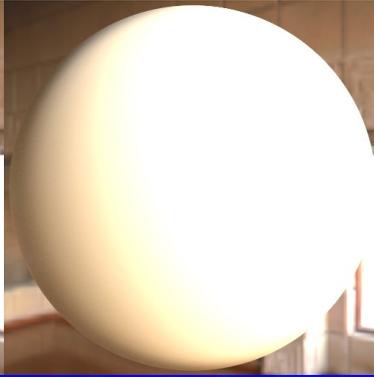
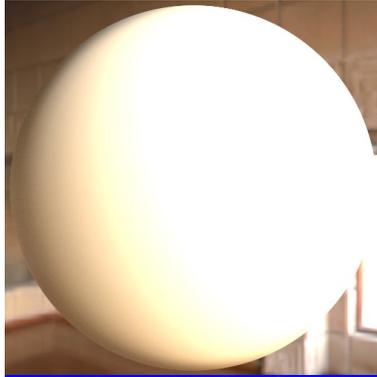
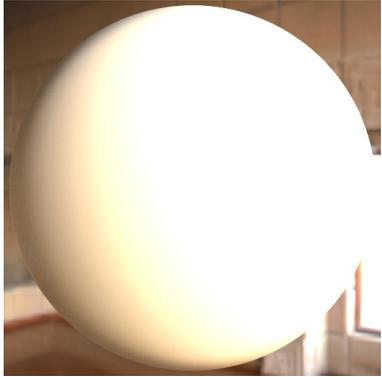
colodur_kalahari_2a

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

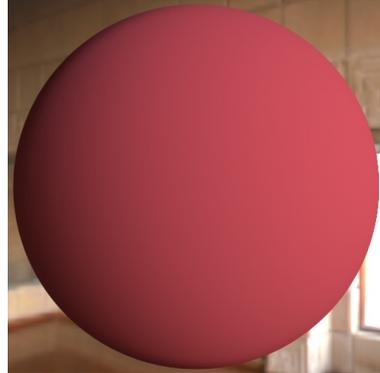
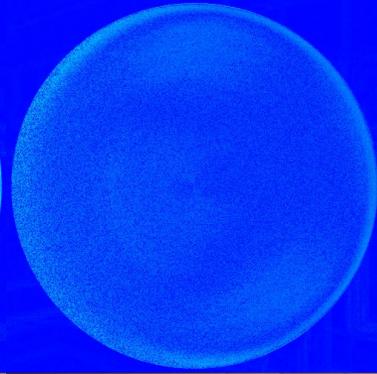
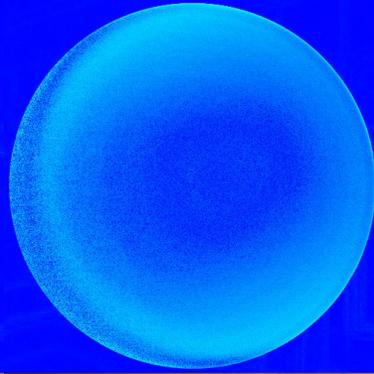
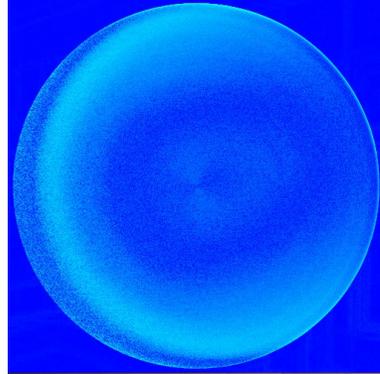
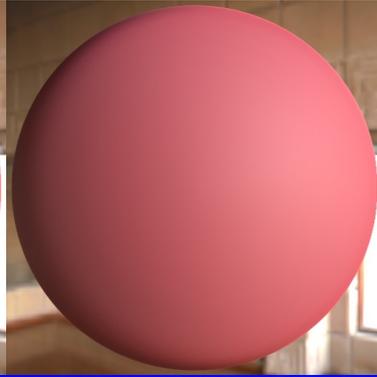
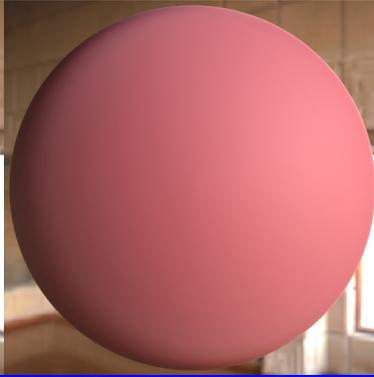
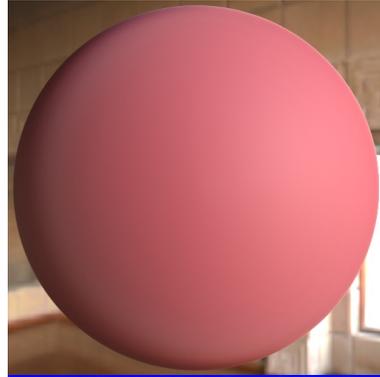
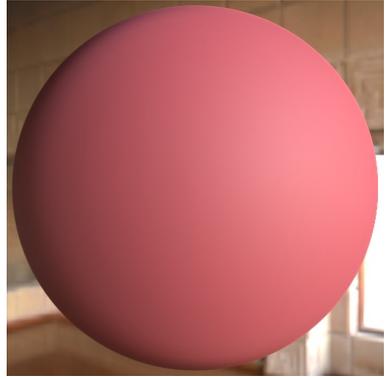
colodur_napoli_4f

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

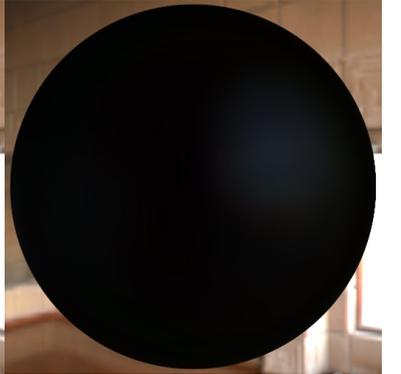
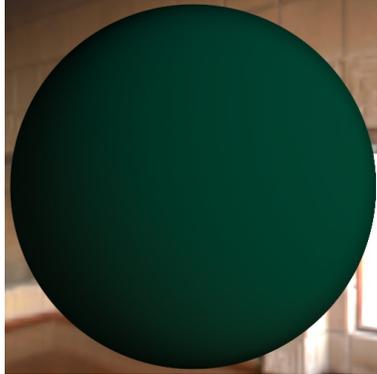
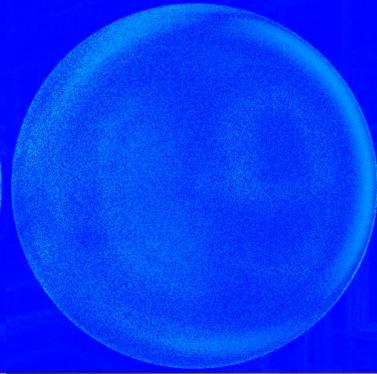
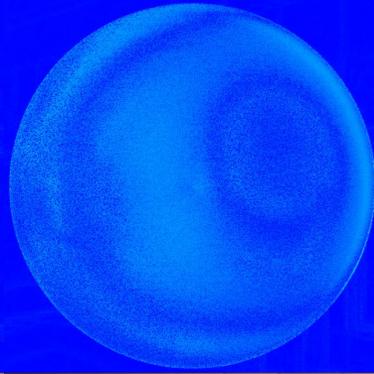
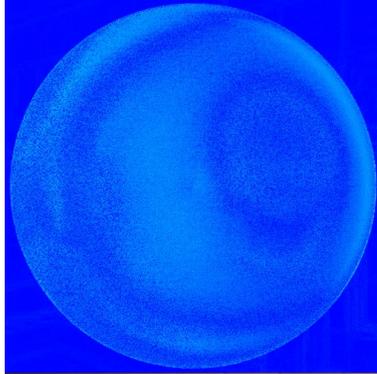
ilm_13_37_dark_green

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

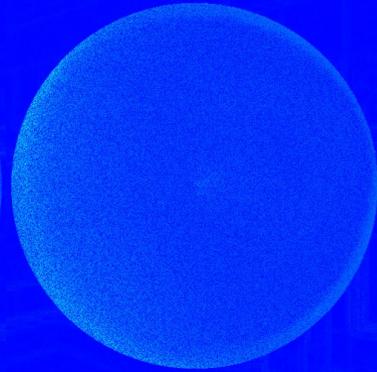
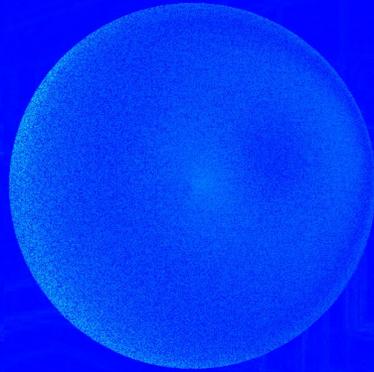
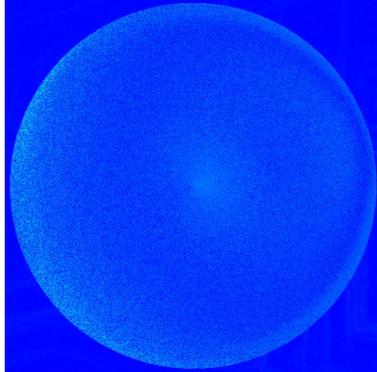
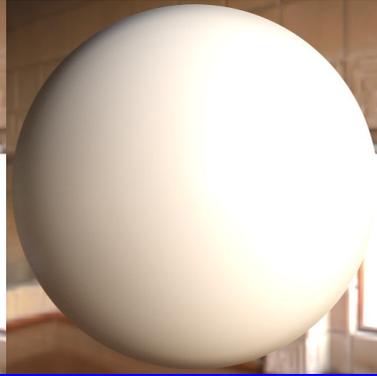
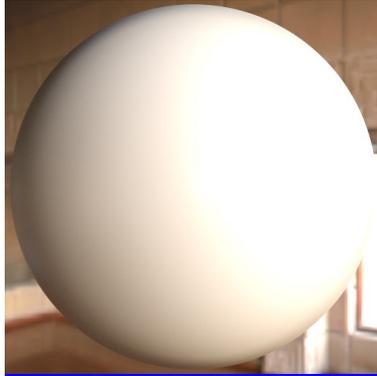
ilm_13_37_matte

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

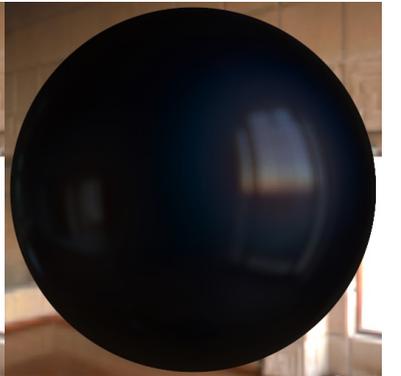
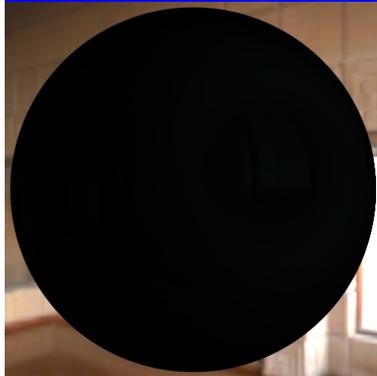
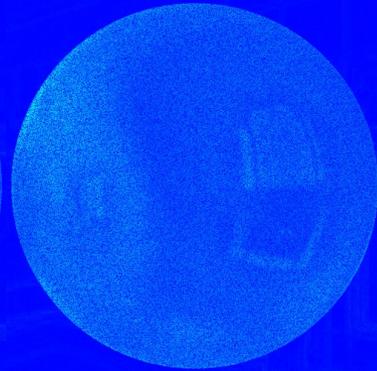
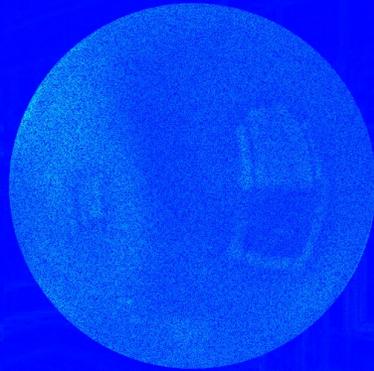
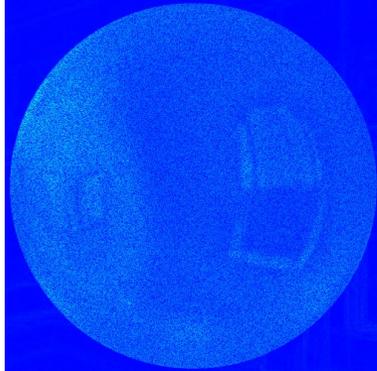
ilm_13_37_metallic

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

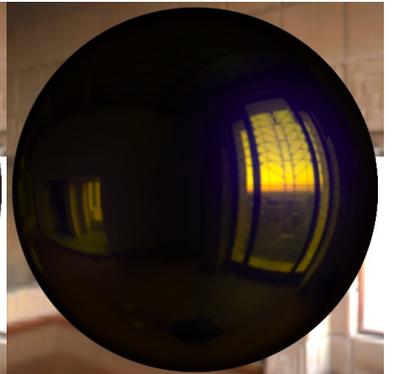
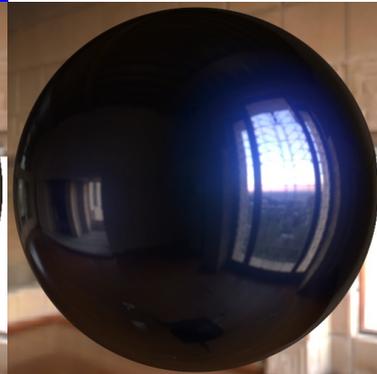
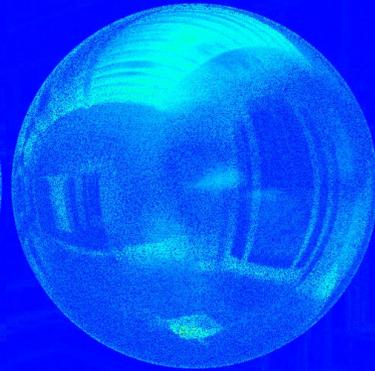
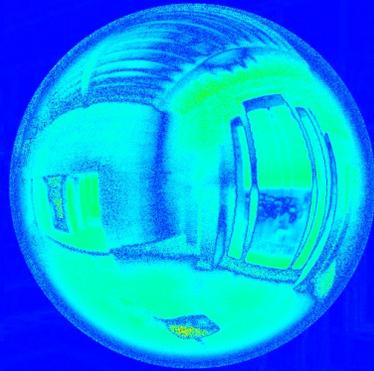
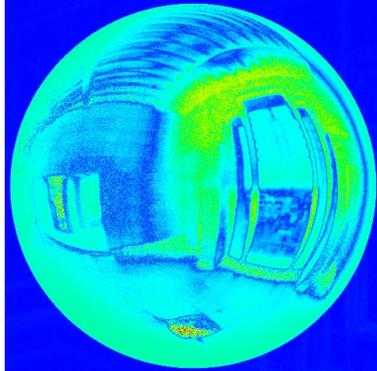
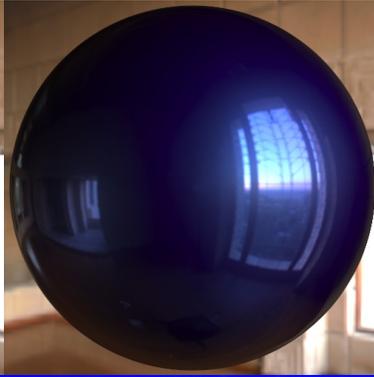
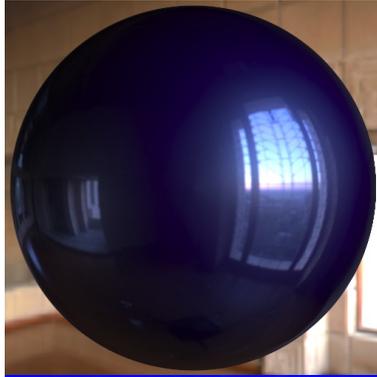
ilm_solo_m_68

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

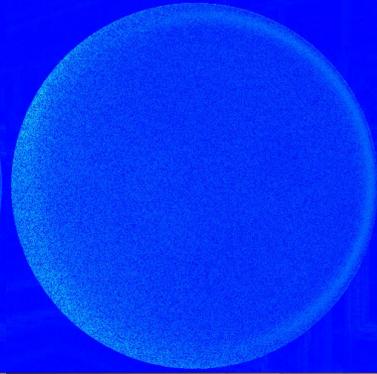
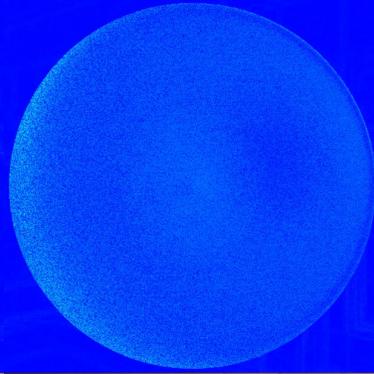
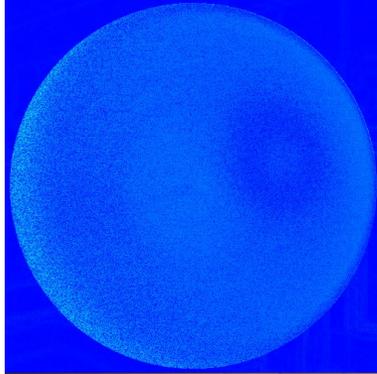
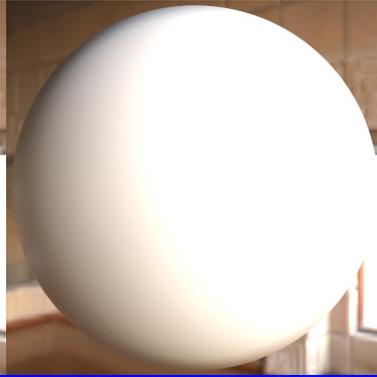
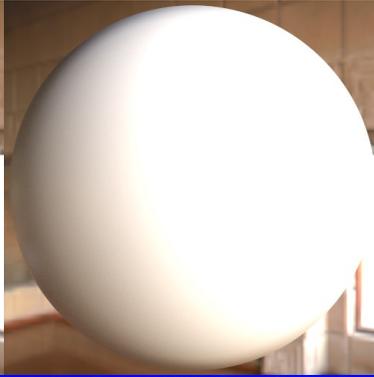
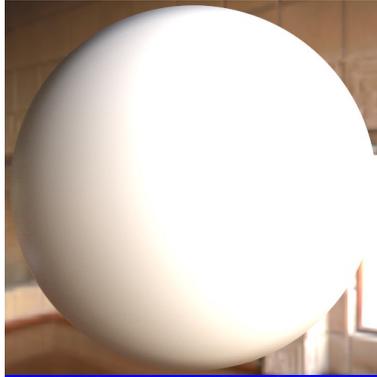
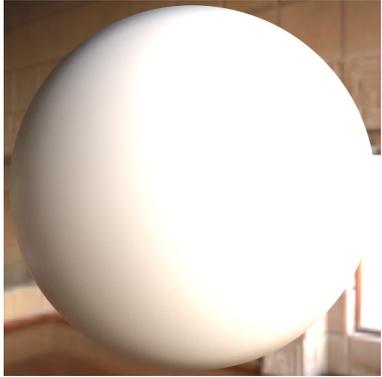
ilm_solo_millennium_falcon

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

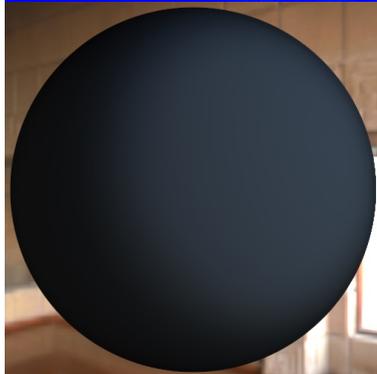
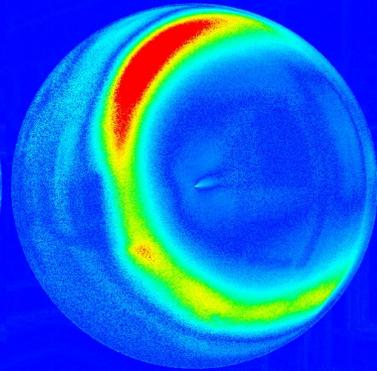
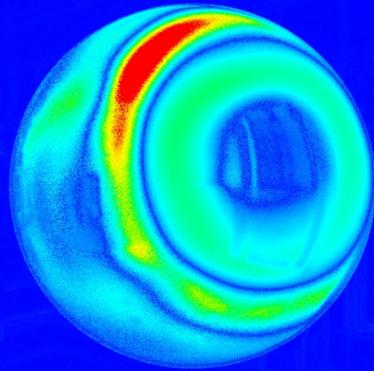
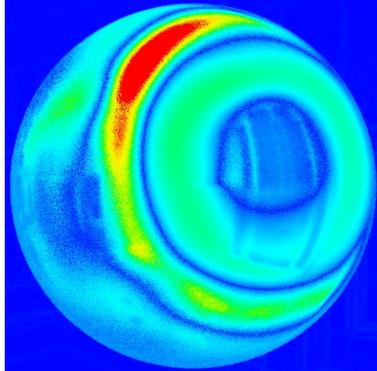
irid_flake_paint1_fine

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

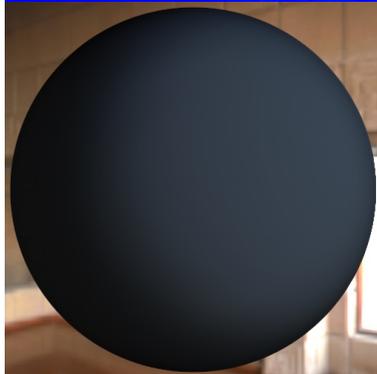
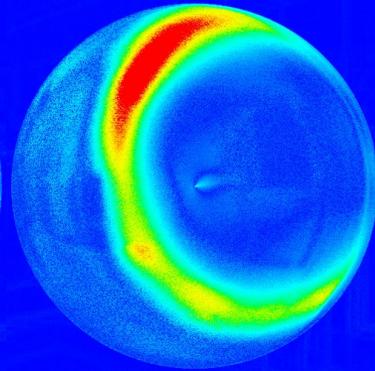
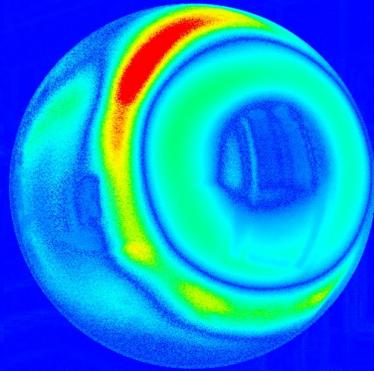
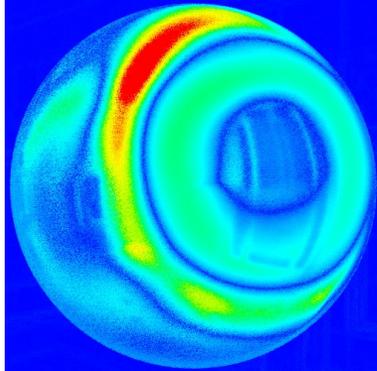
irid_flake_paint1

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

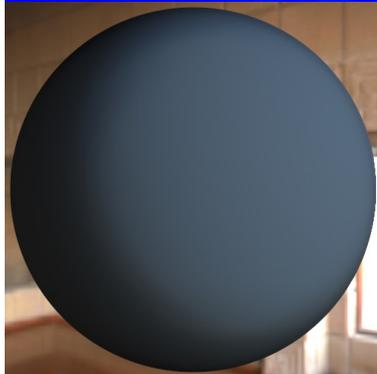
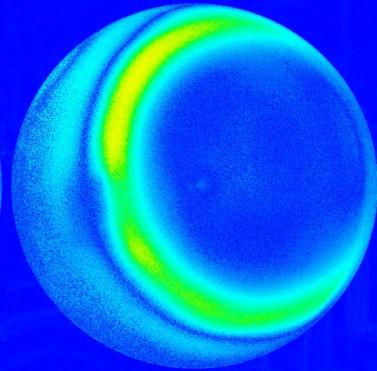
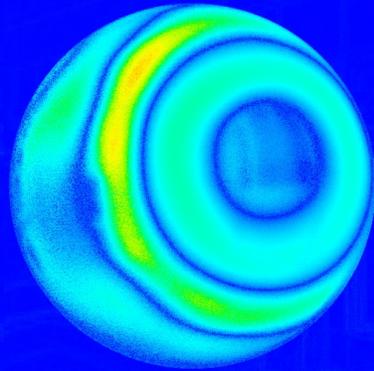
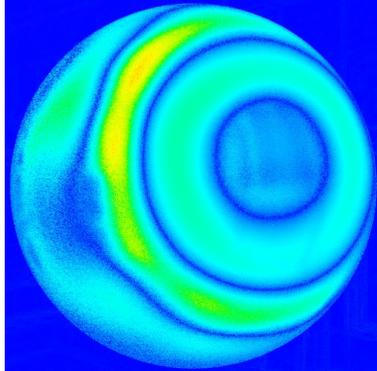
irid_flake_paint2

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

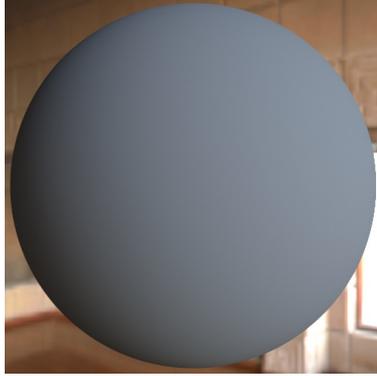
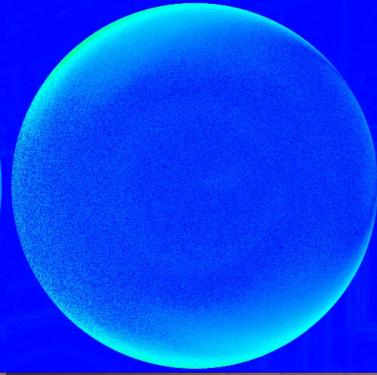
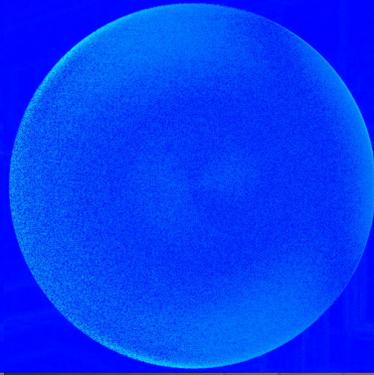
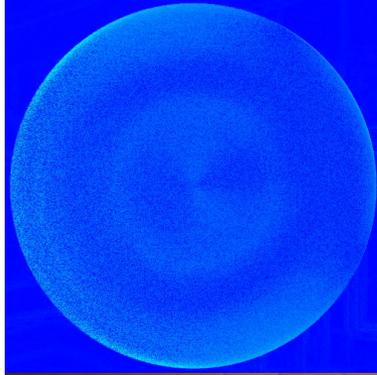
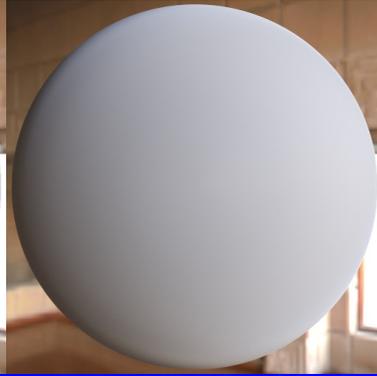
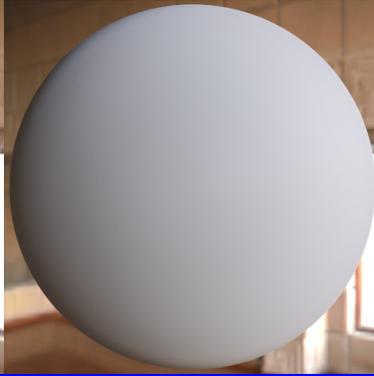
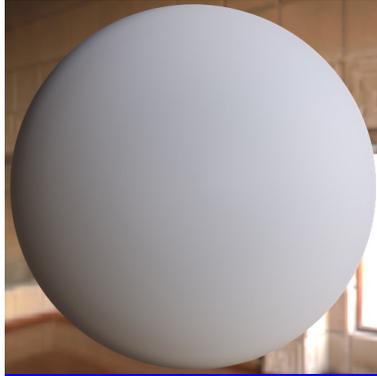
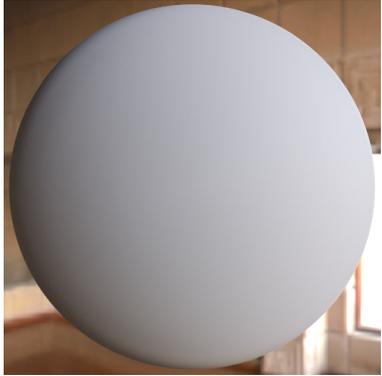
laika_ceiling_paint_18_gray

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

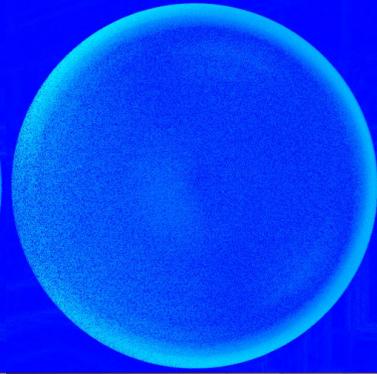
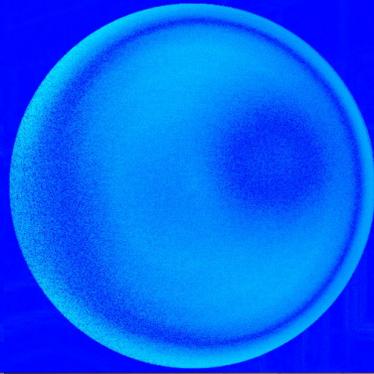
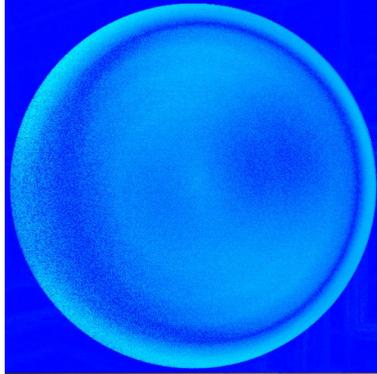
leaf_maple

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

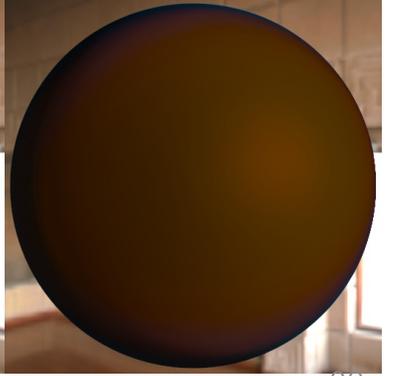
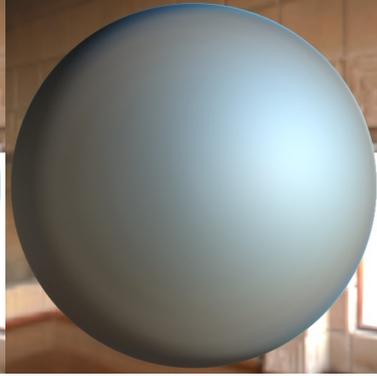
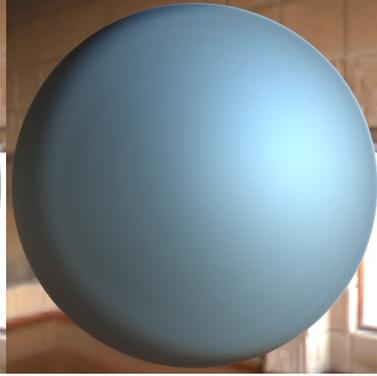
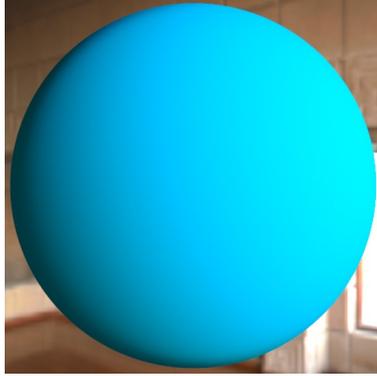
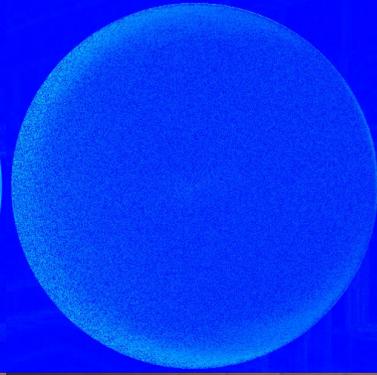
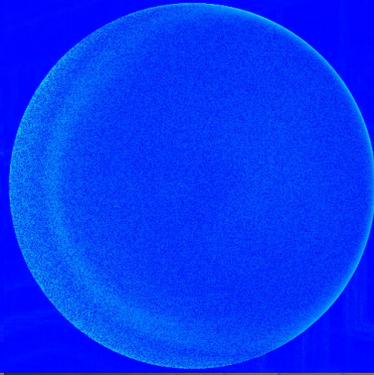
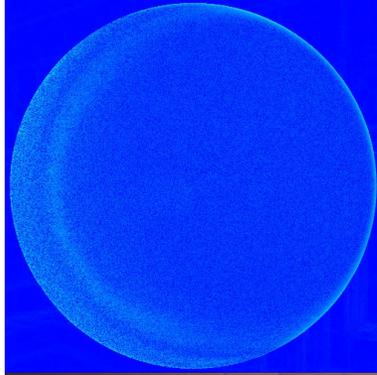
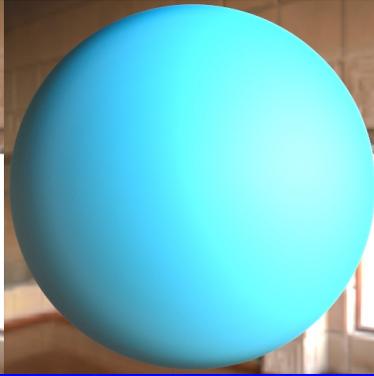
paper_blue

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

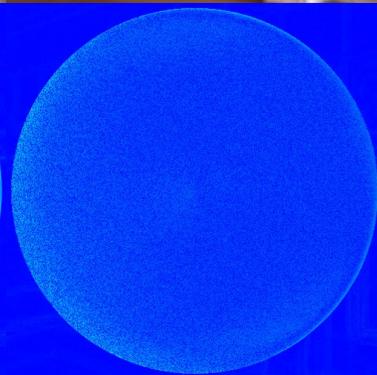
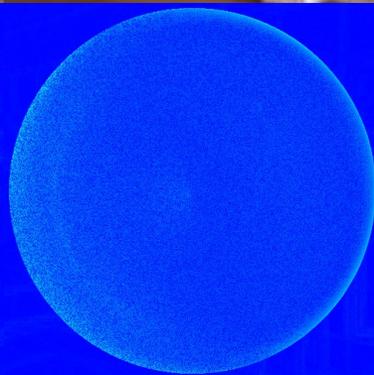
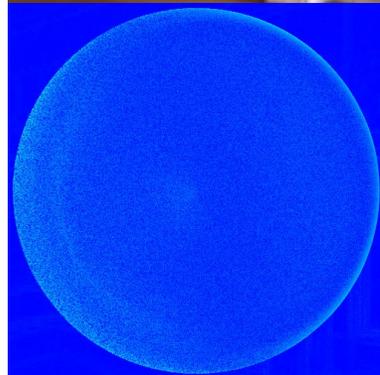
paper_green

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

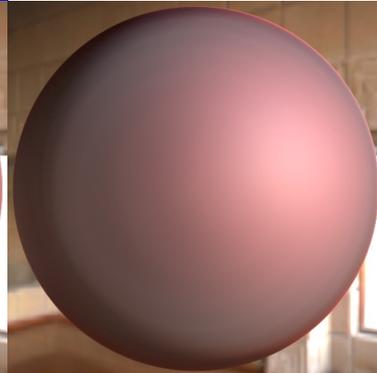
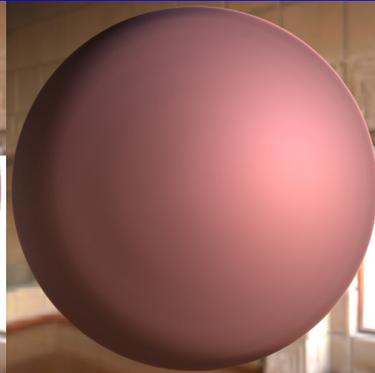
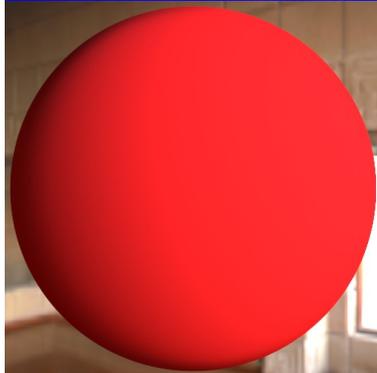
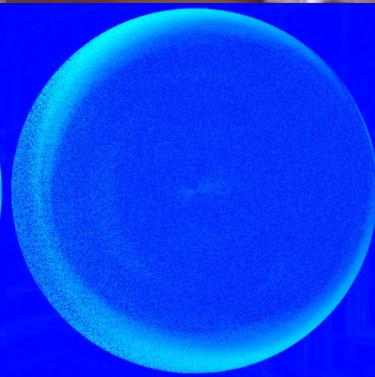
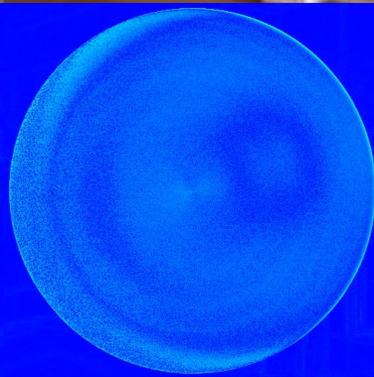
paper_red

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

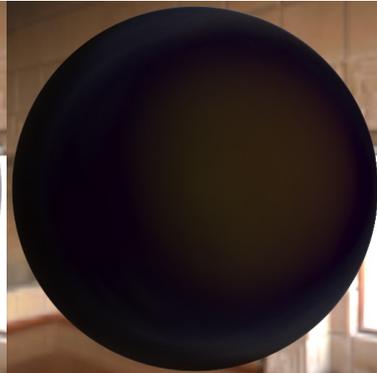
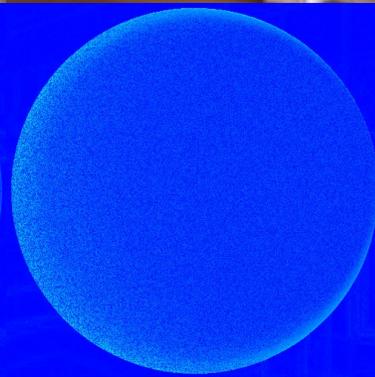
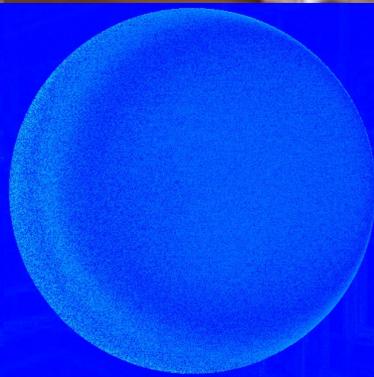
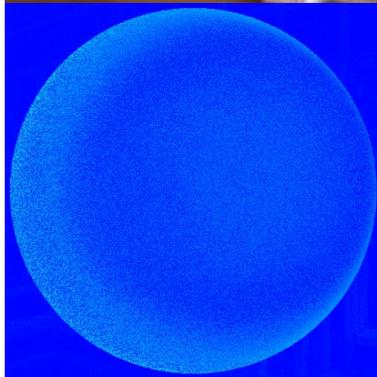
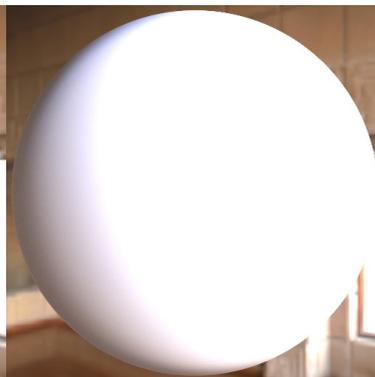
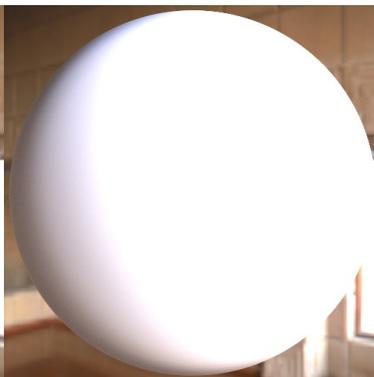
paper_white

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

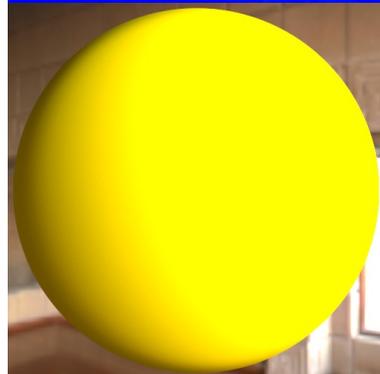
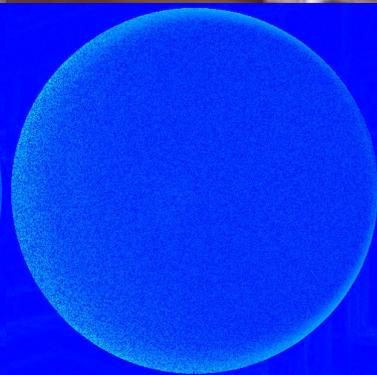
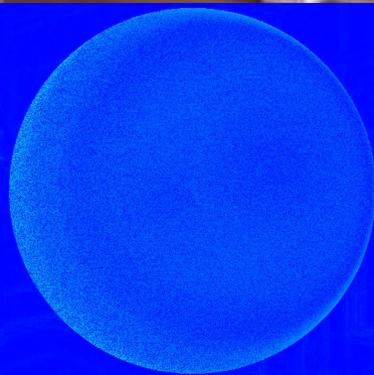
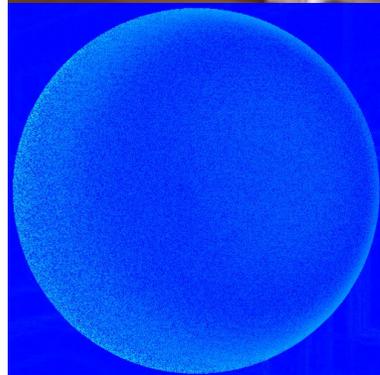
paper_yellow

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

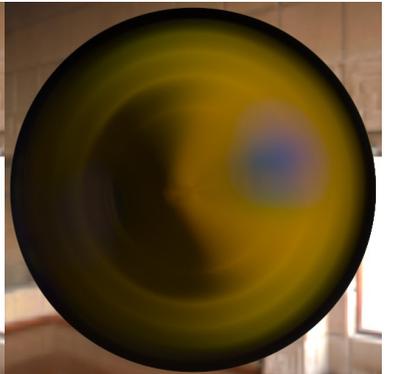
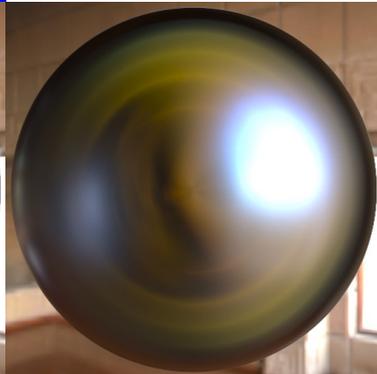
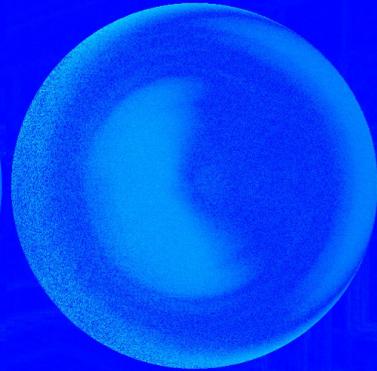
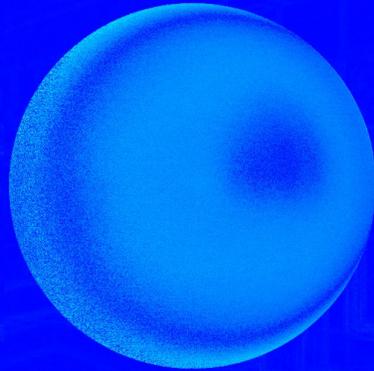
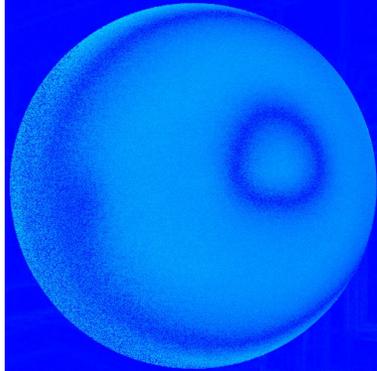
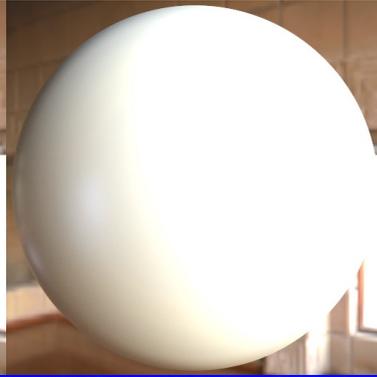
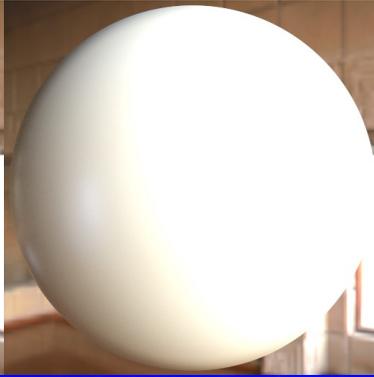
satin_blue

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

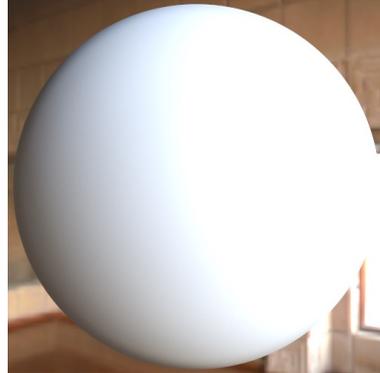
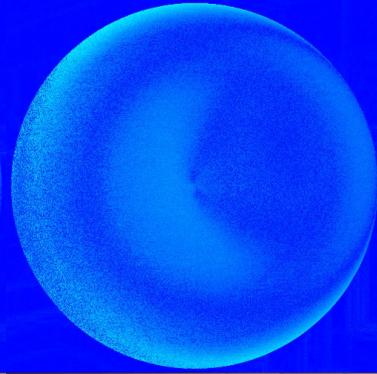
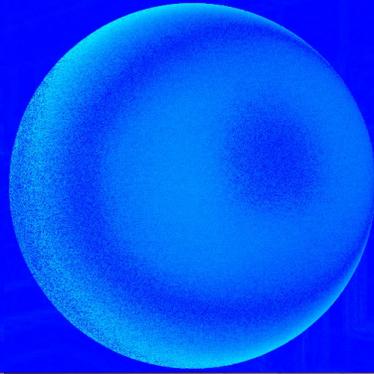
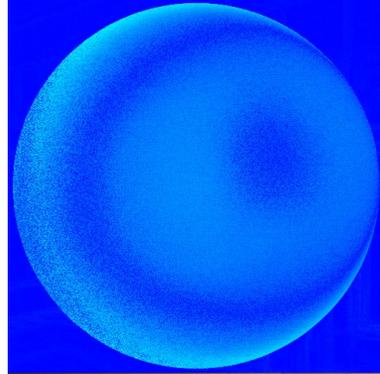
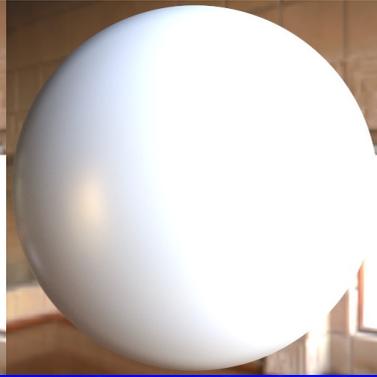
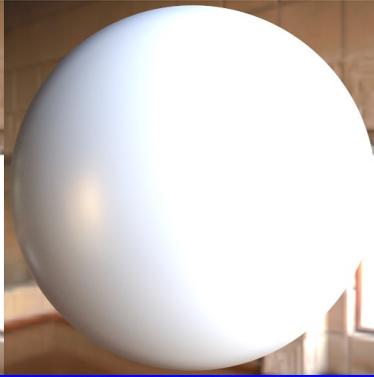
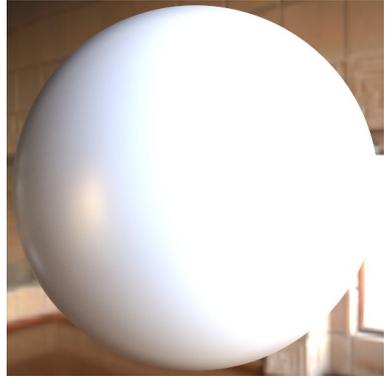
satin_gold

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec. diff. effect

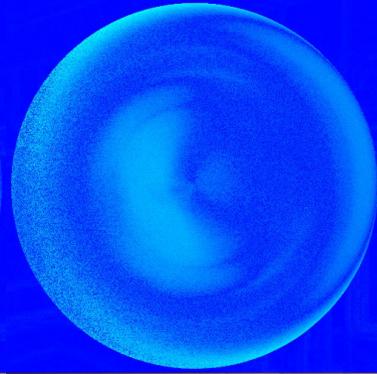
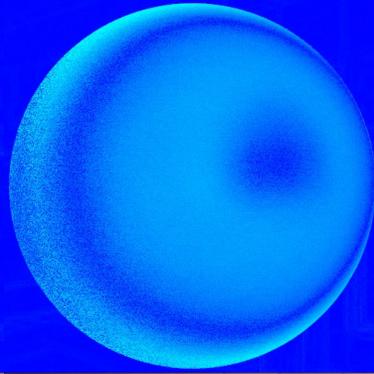
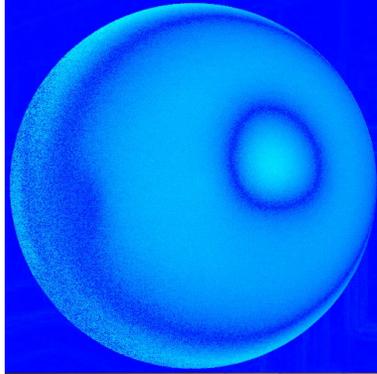
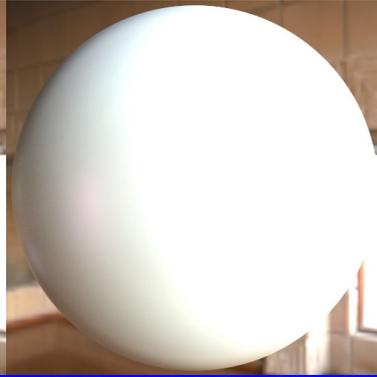
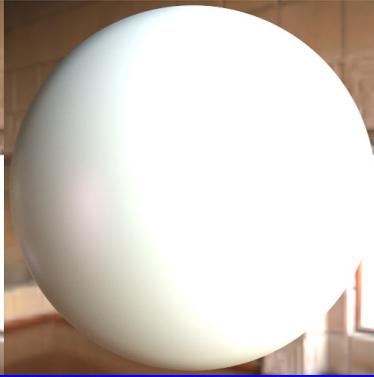
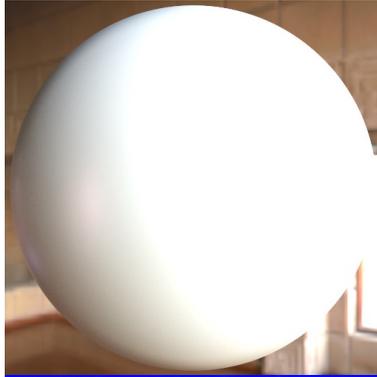
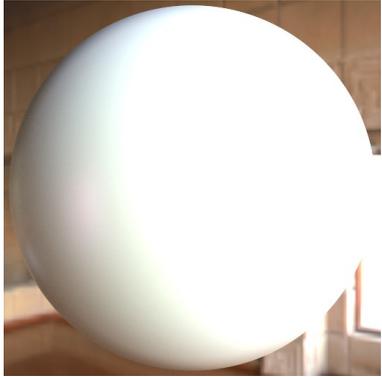
satin_purple

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

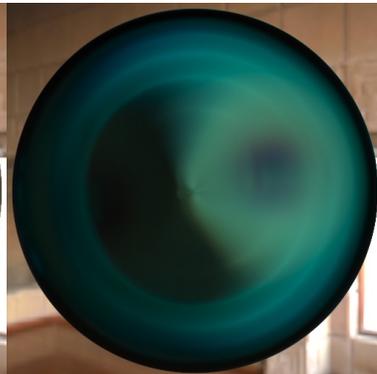
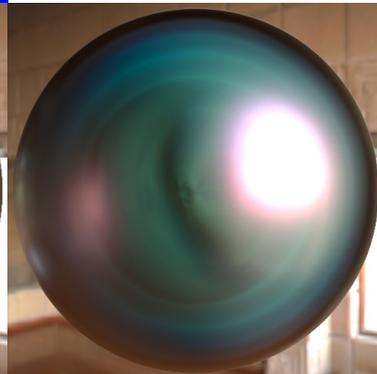
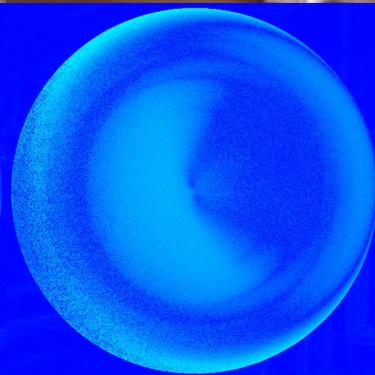
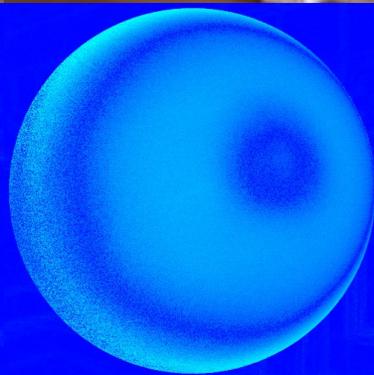
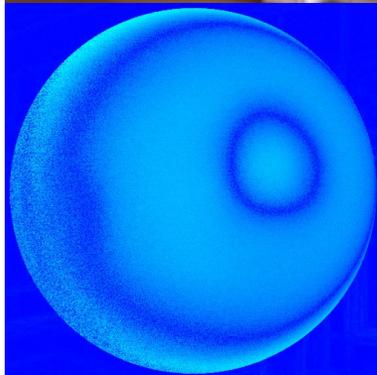
satin_rosaline

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

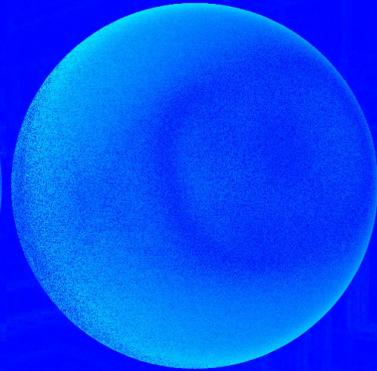
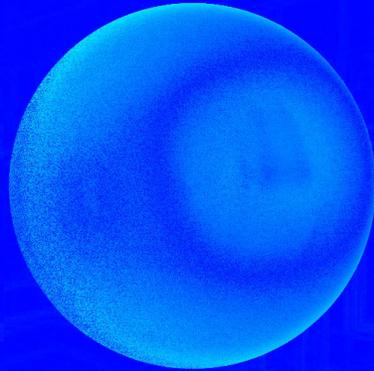
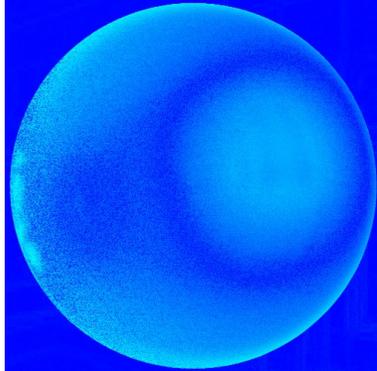
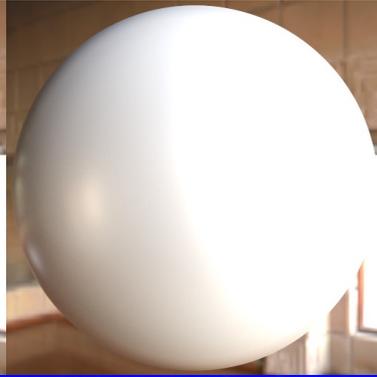
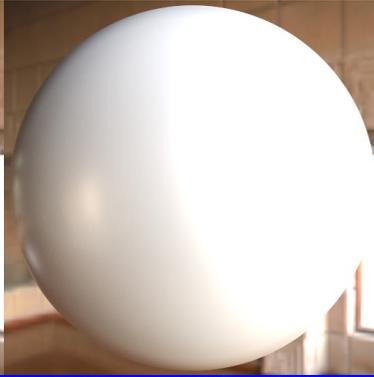
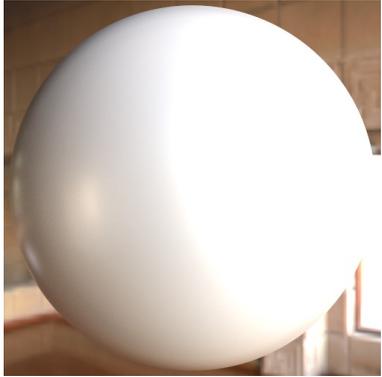
satin_white

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

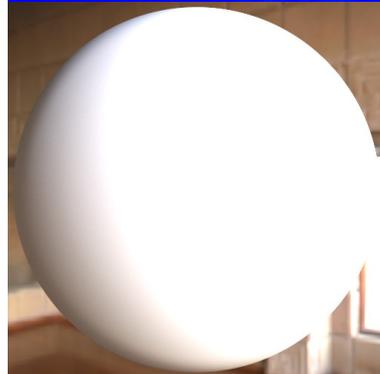
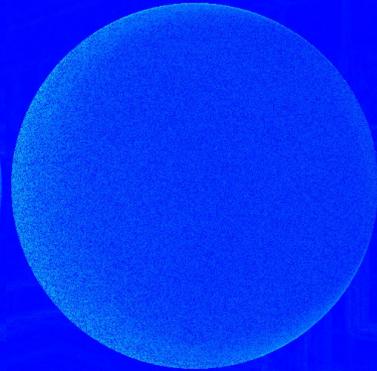
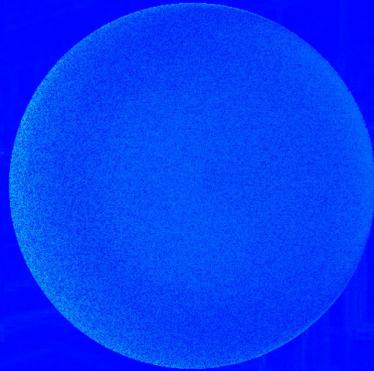
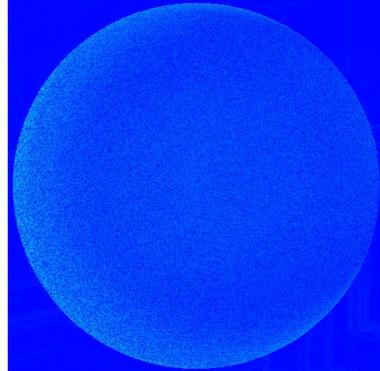
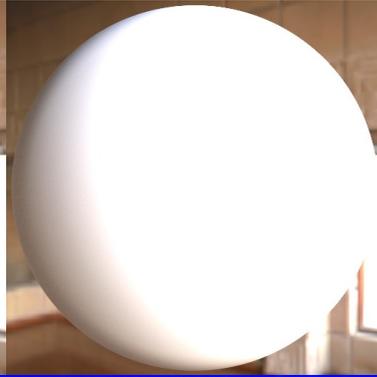
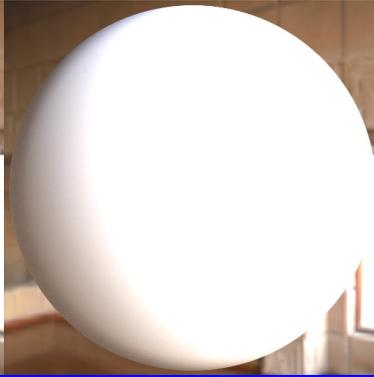
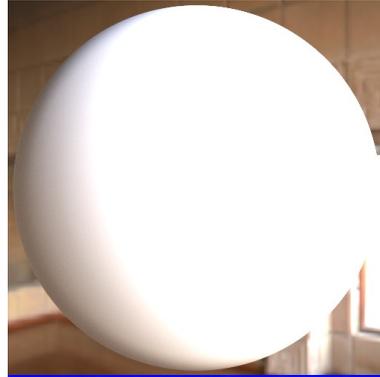
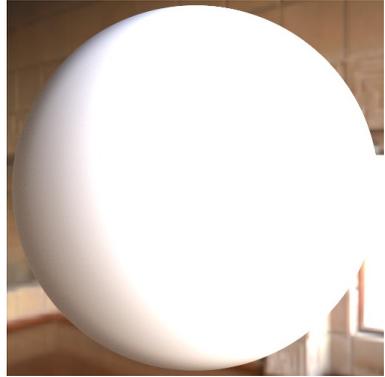
spectralon

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

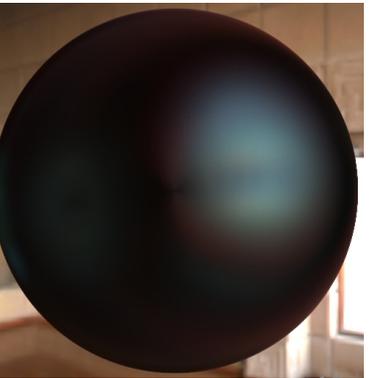
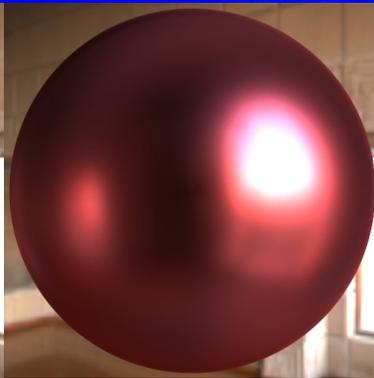
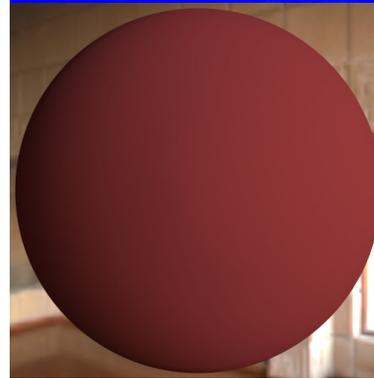
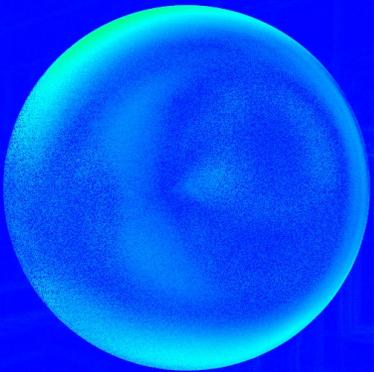
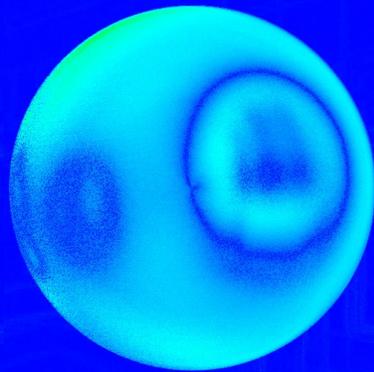
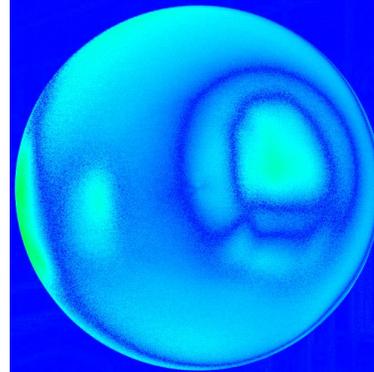
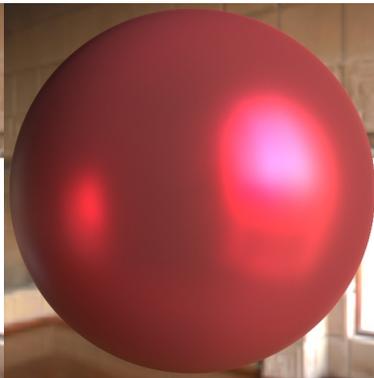
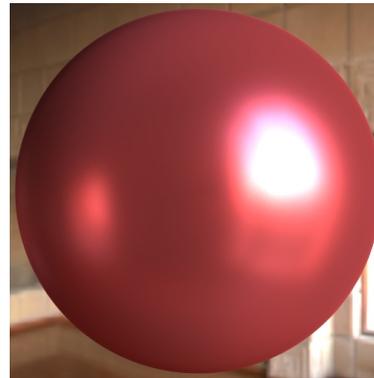
vch_dragon_eye_red

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

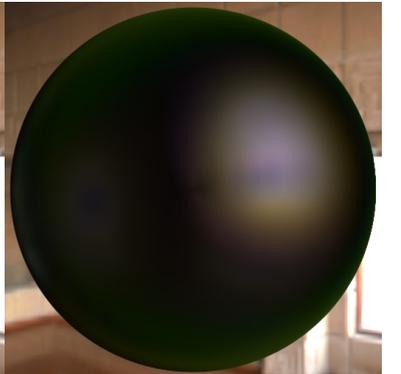
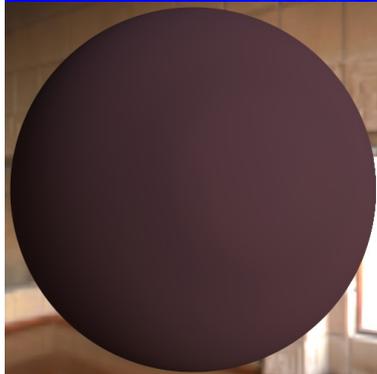
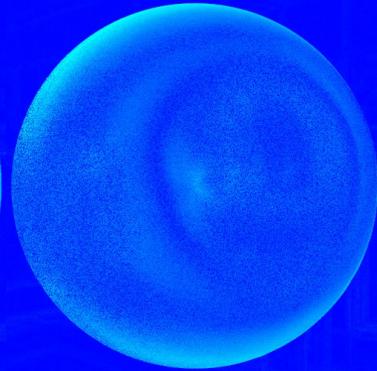
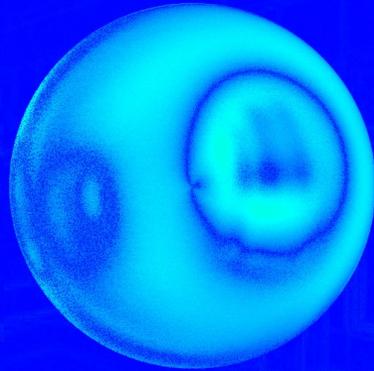
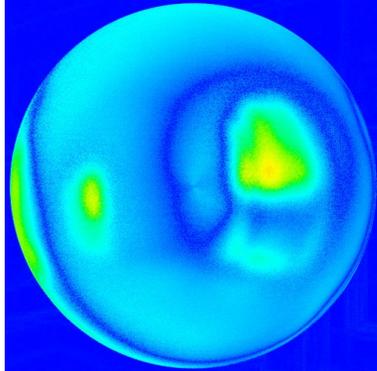
vch_frozen_amethyst

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

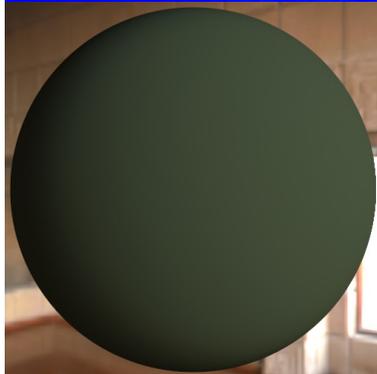
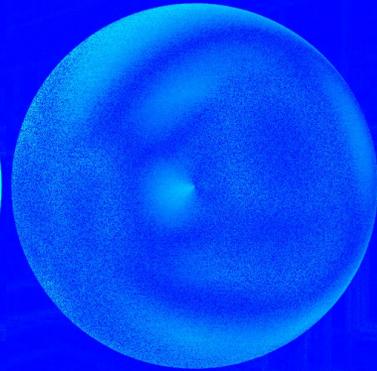
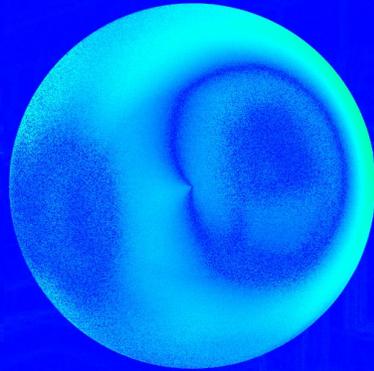
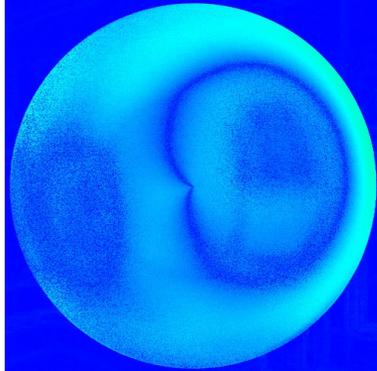
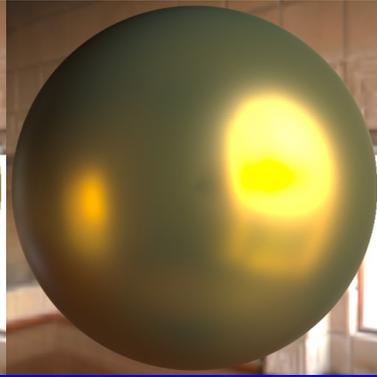
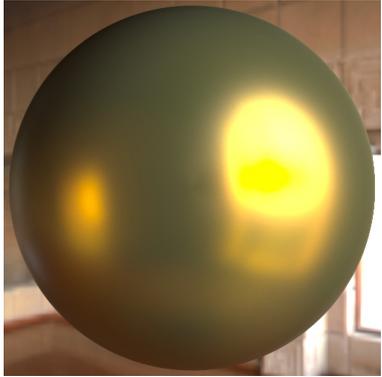
vch_golden_yellow

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

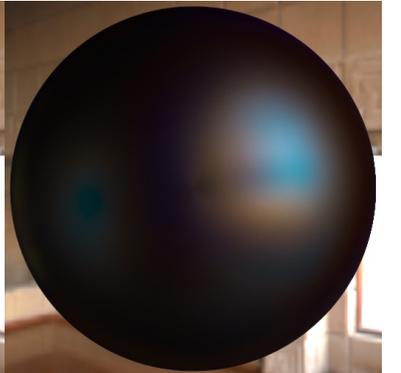
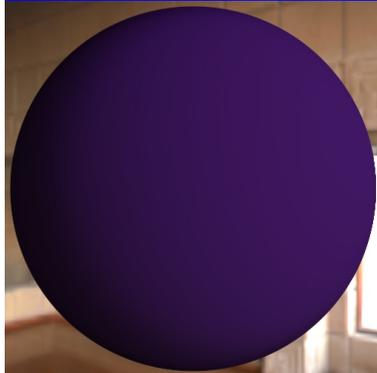
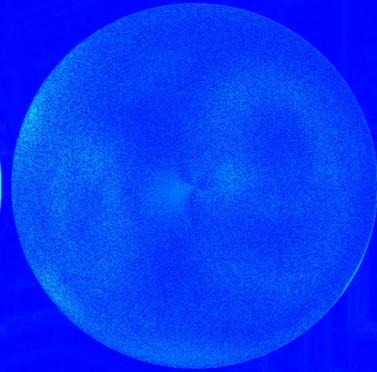
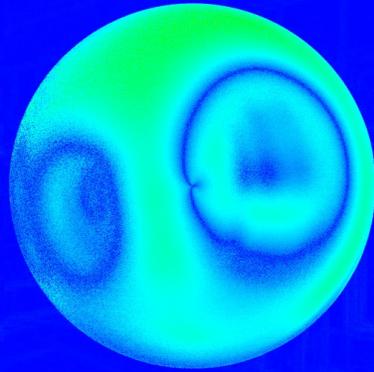
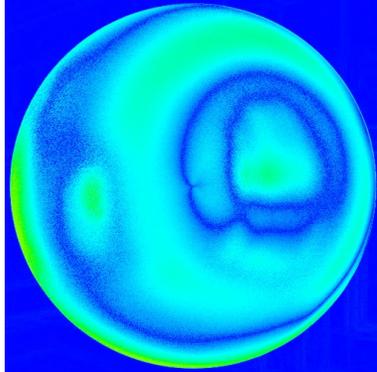
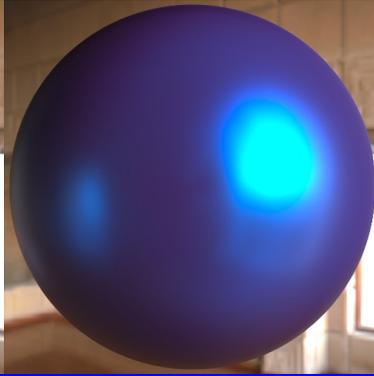
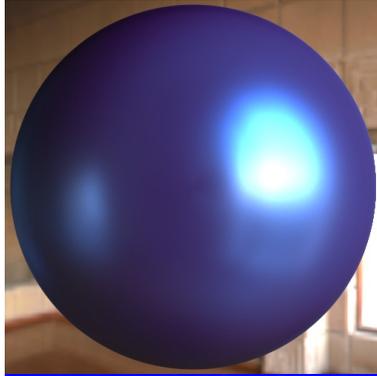
vch_silk_blue

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect

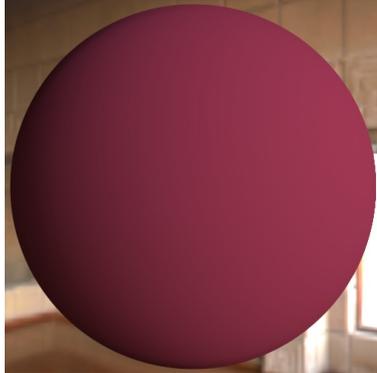
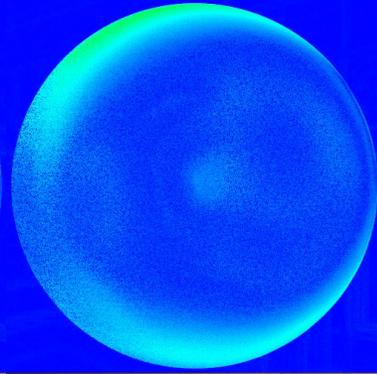
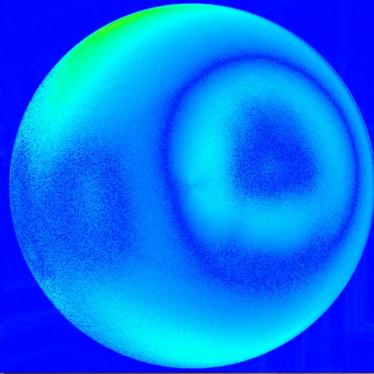
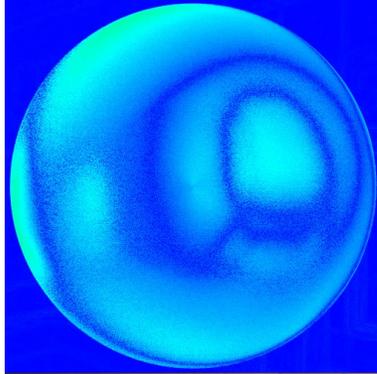
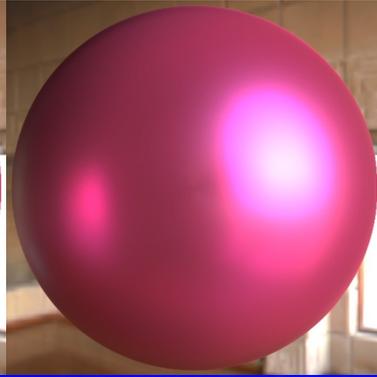
vch_ultra_pink

ref

sun18

Fresnel

diffraction



diffuse

sun18 spec.

Fresnel spec.

diffraction spec.

diff. effect