

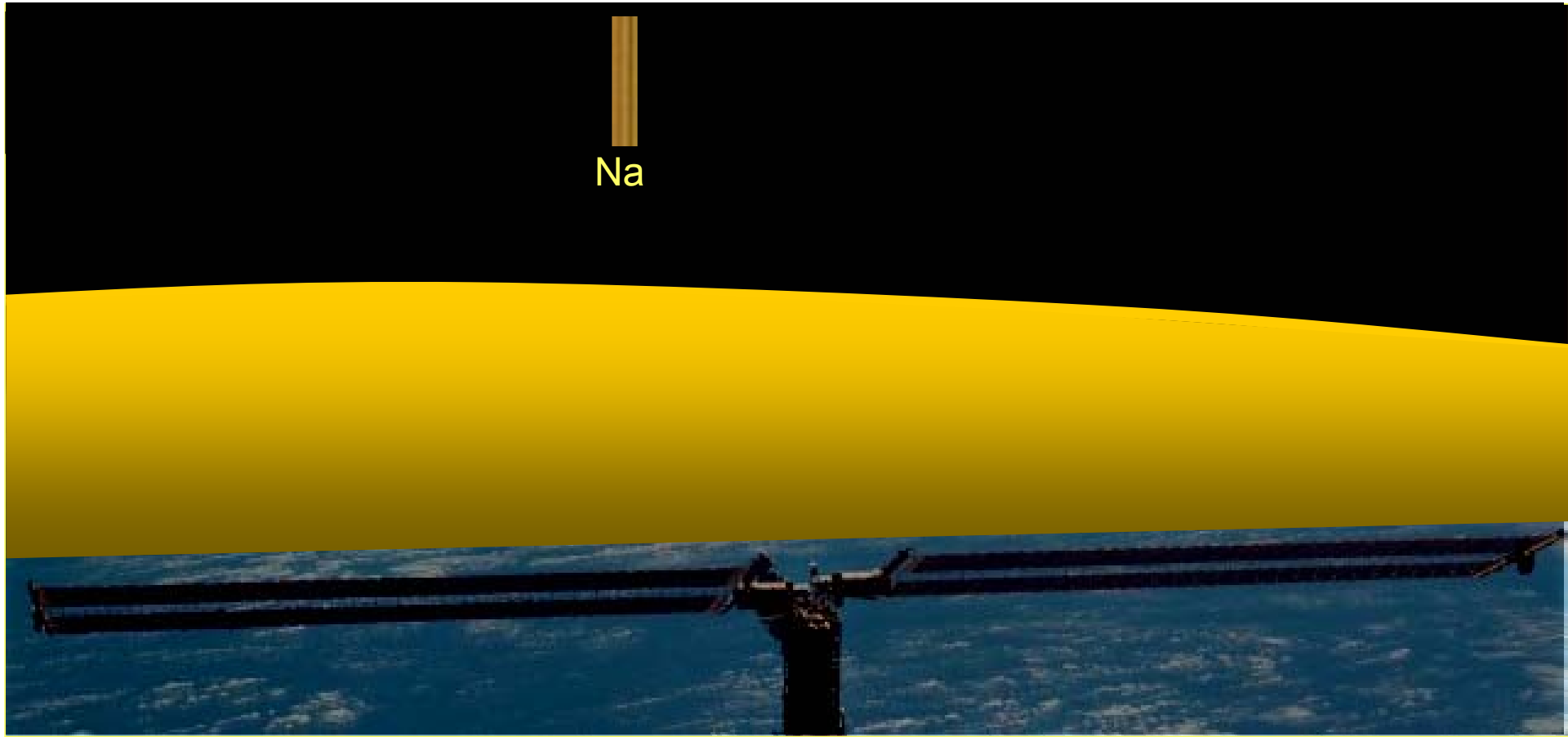
STUDENT CONTEST

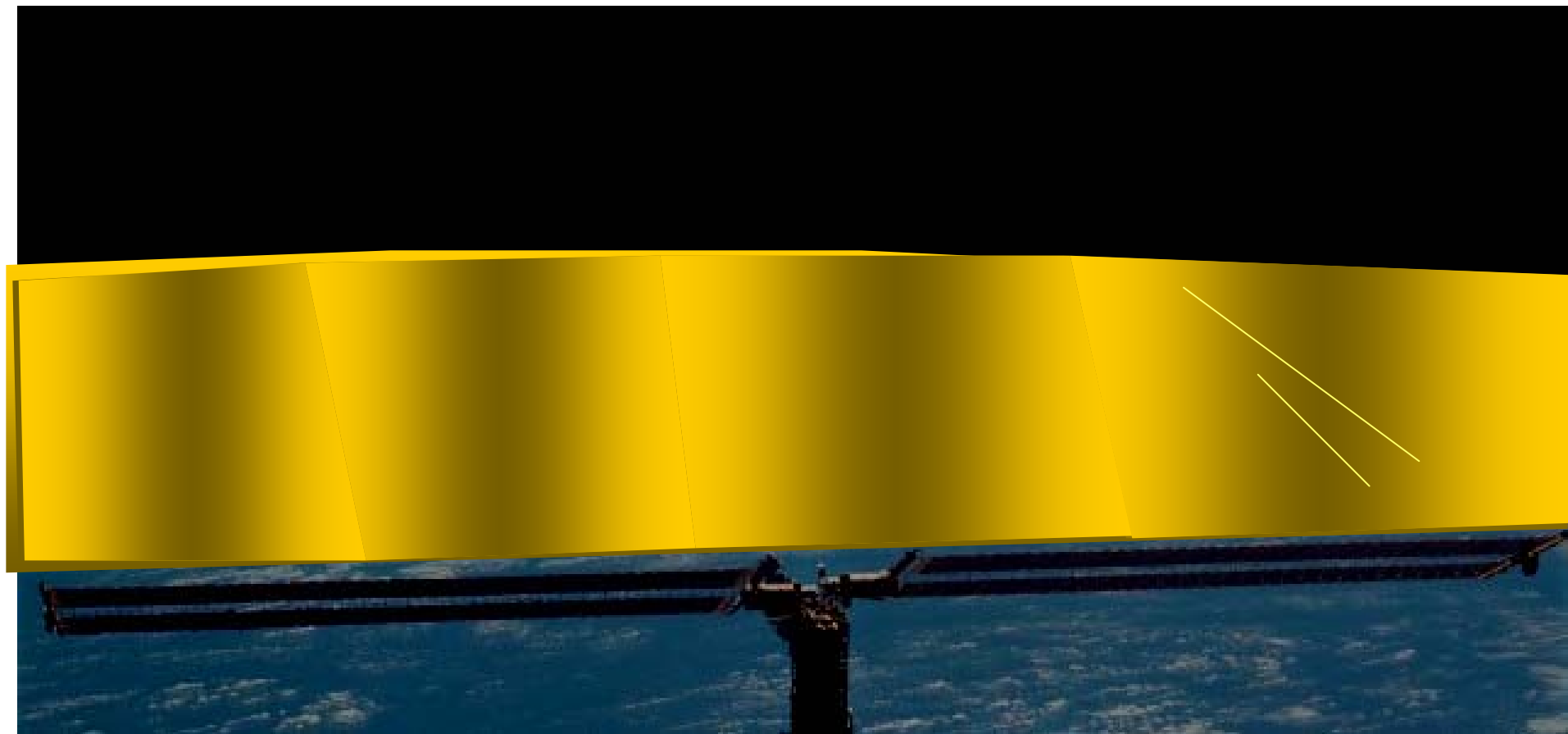
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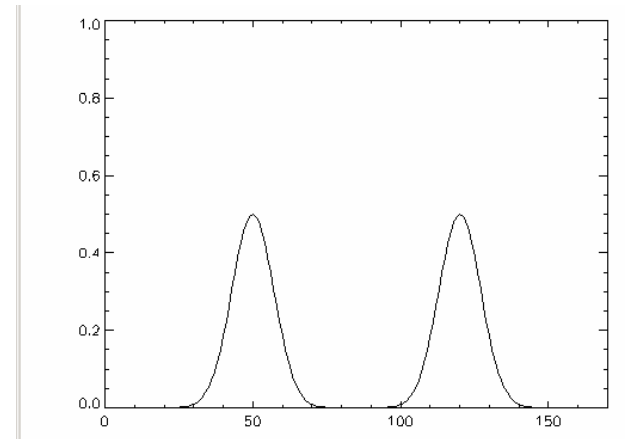
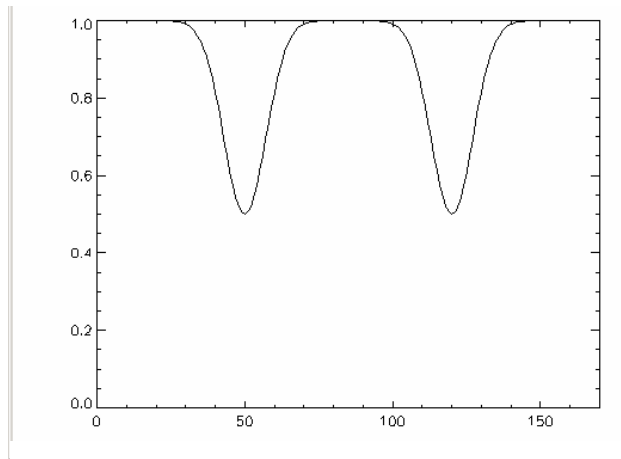
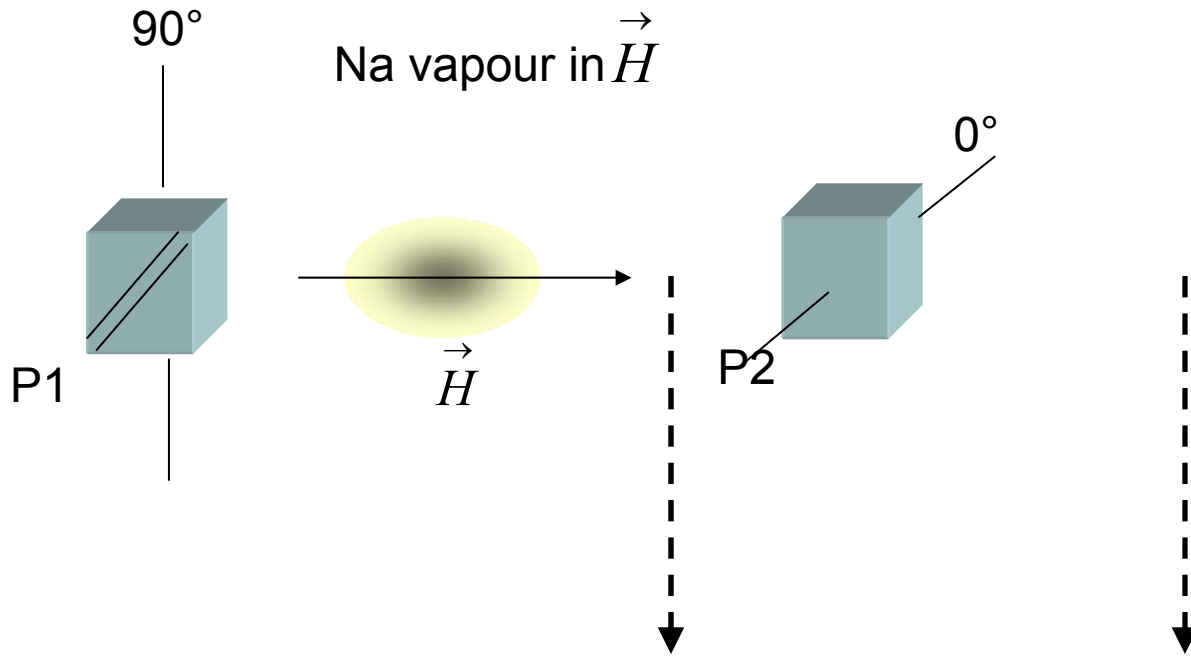


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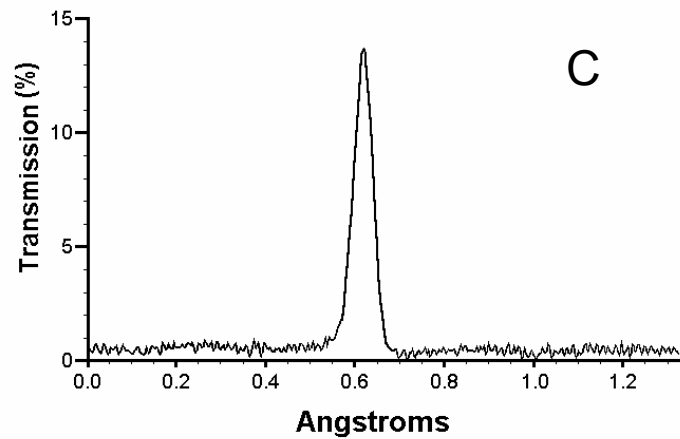
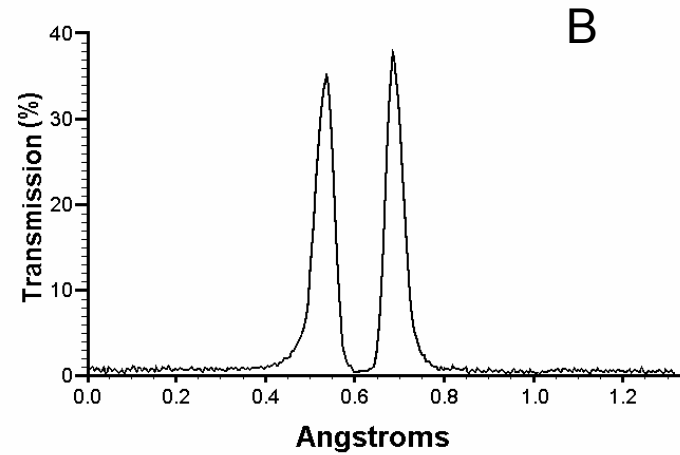
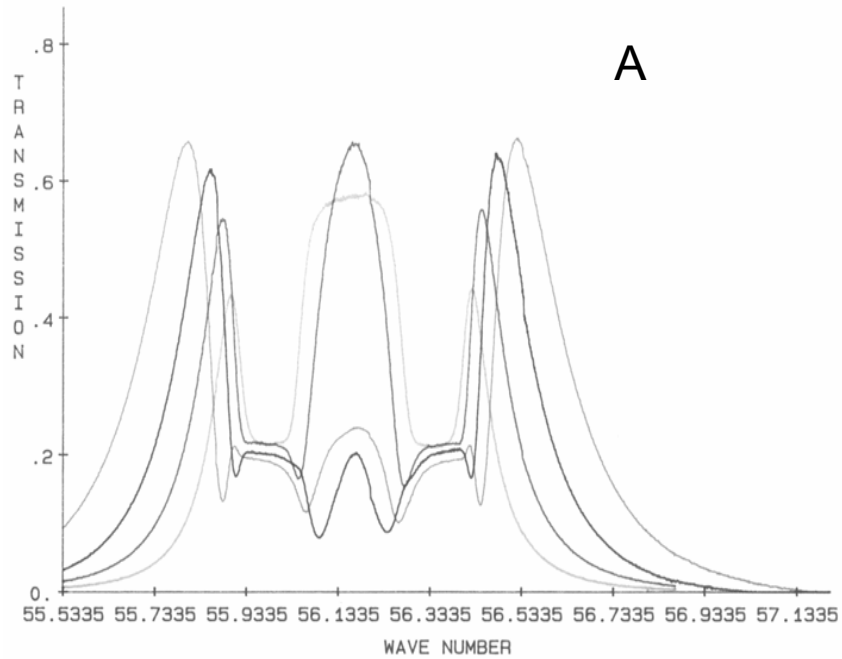
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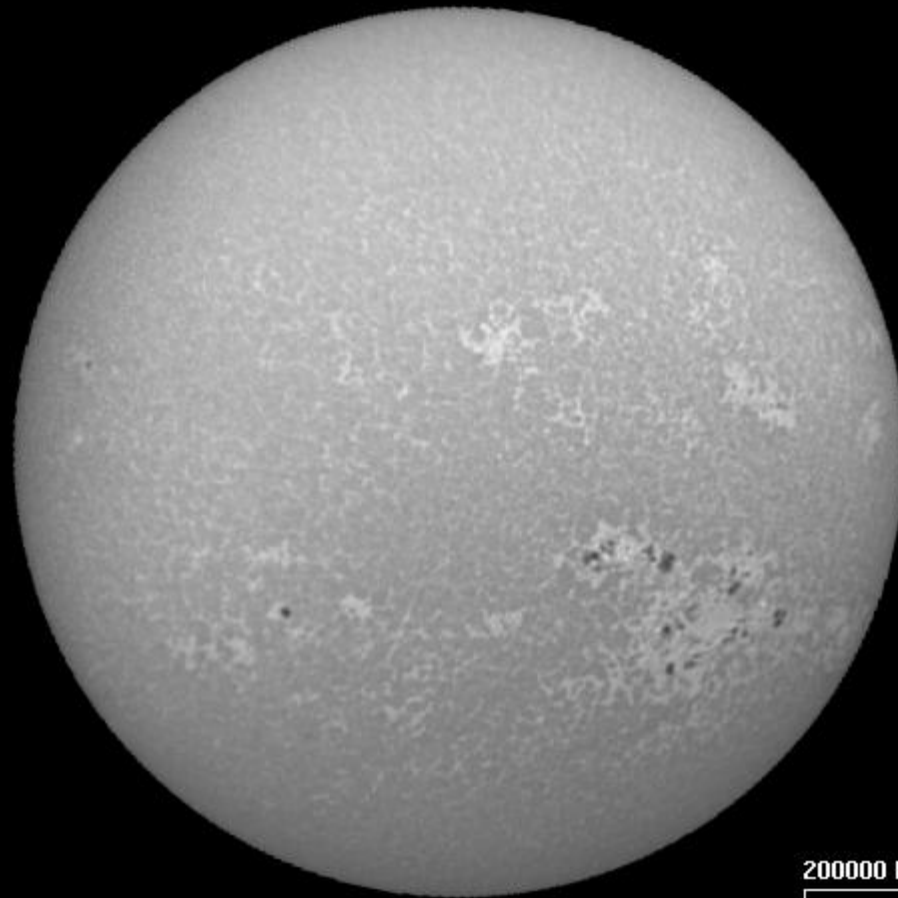
Typical MOF transmission profiles



KANZELHOEHE SOLAR OBSERVATORY (Austria)

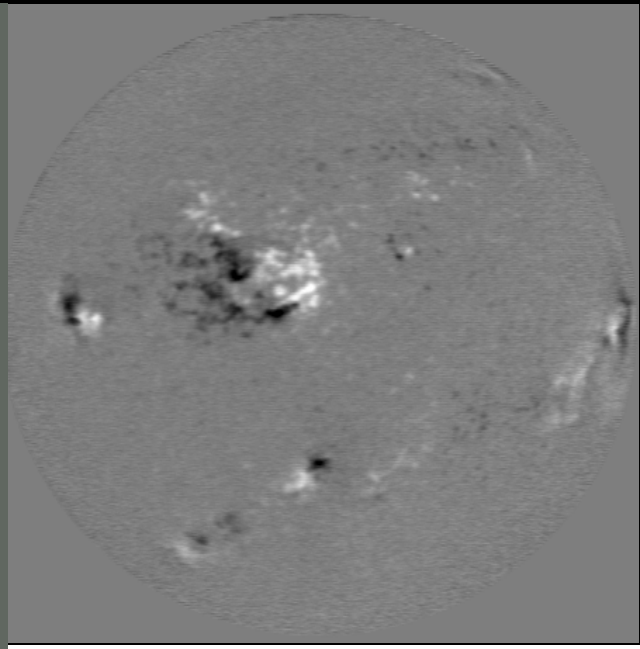
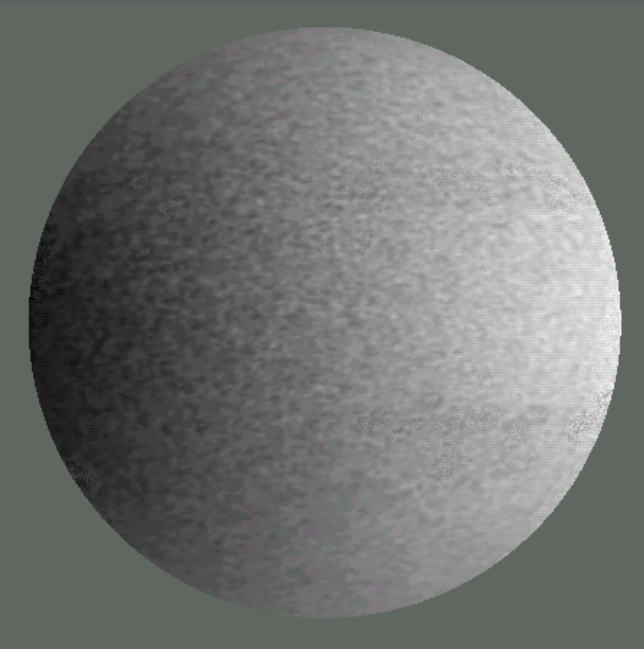
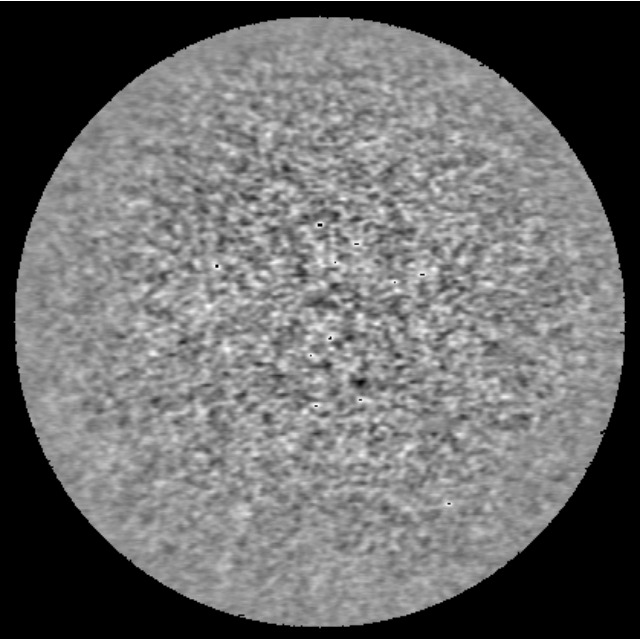
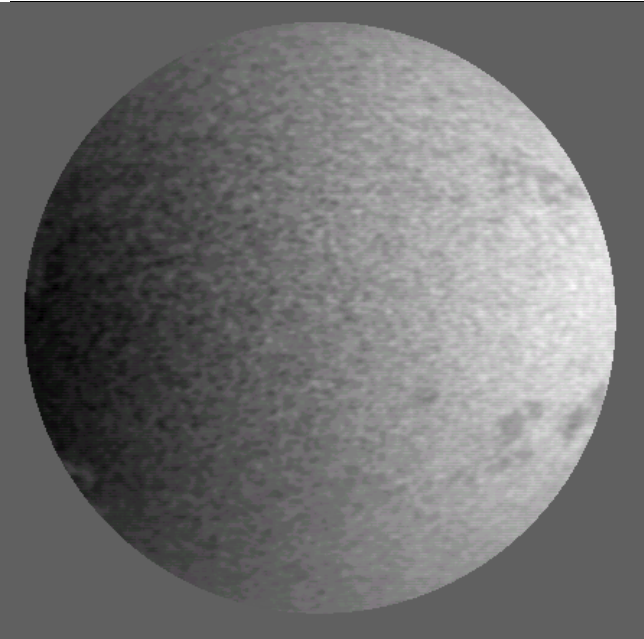
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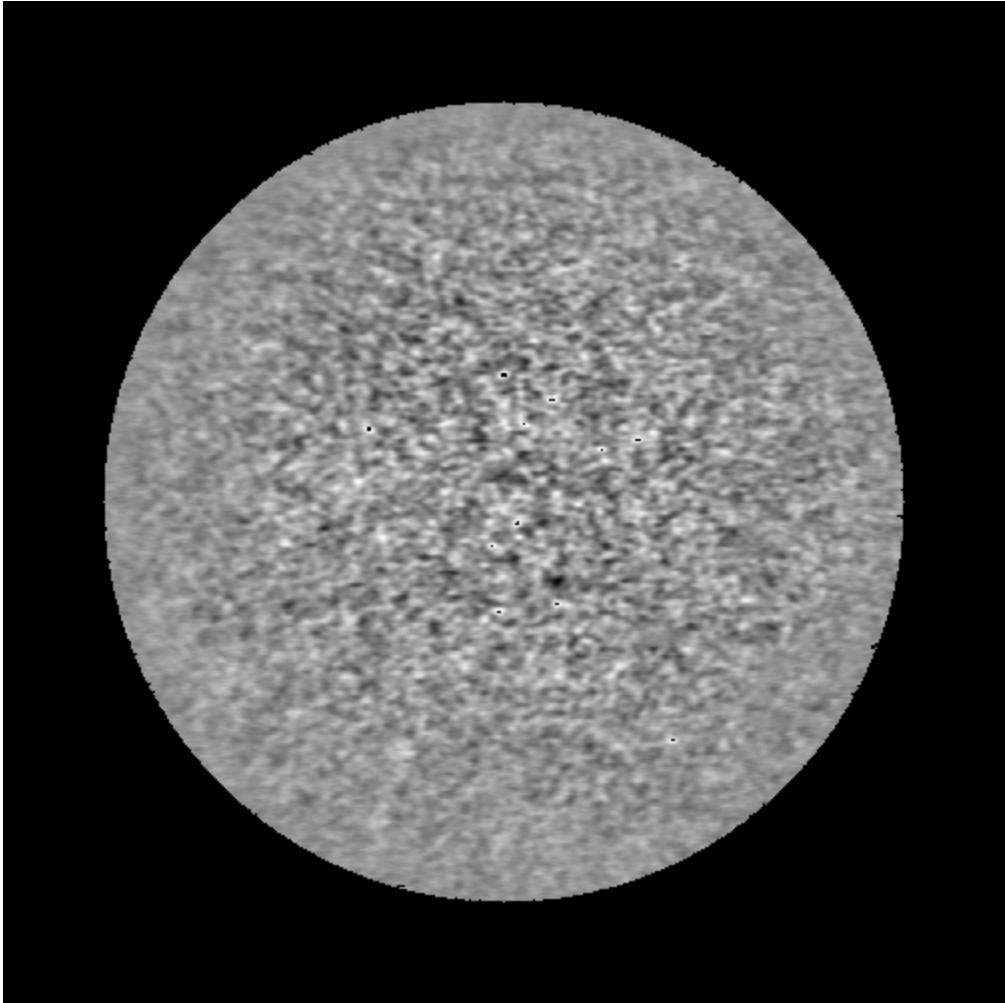
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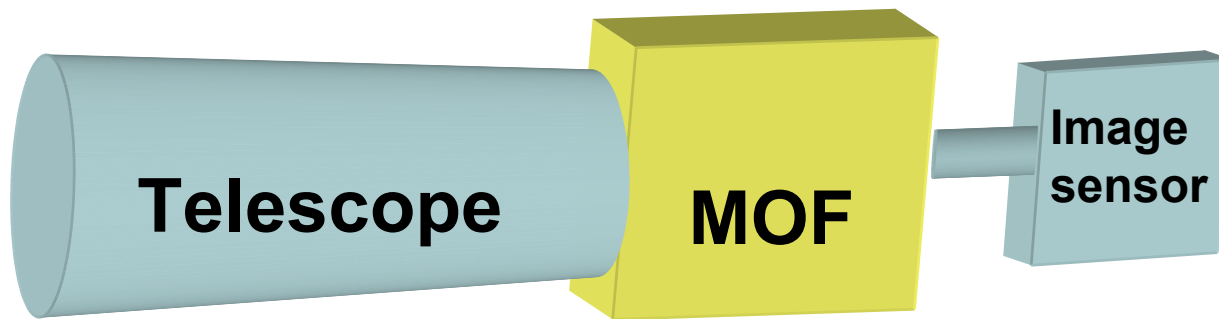


W

200000 km







Total length = 50cm

Telescope aperture: 5 or 10 cm

Total weight: TBD

Expected photon flux

Average sodium abundance $3 \cdot 10^{13}$ atoms m^{-2}

Cross section of resonance scattering $7 \cdot 10^{-17}$ $\text{m}^2 \text{ster}^{-1}$

Therefore

Photon flux = $a \cdot b = 2.1 \cdot 10^{-3}$ events / solar photon

The detailed computation of the number of photons / sensor- pixel will be given in our final proposal. The result is that we have enough photons to be seen by a sensor provided by JPL in collaboration with our Advisor.

Solar photons inside the MOF pass-band = $7.4 \cdot 10^{15}$ photons / s