

**Supplement to:**

**Roughness metrics of prismatic facets of ice**

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Figures S.1-4 reproduce model hexagonal polyhedra used in ray-tracing calculations, at higher magnification than in the main text. Figure S.5 displays the sinusoidal polyhedron used in ray-tracing, for which a phase function is displayed in Fig. 7 of the text. Figure S.6 is a re-plotting of Fig. 7 of the text having a zoomed-in horizontal axis to highlight more forward-scattering angles, and a zoomed-out vertical axis to facilitate comparison of the 22° halo brightness to the directly forward-scattered component.

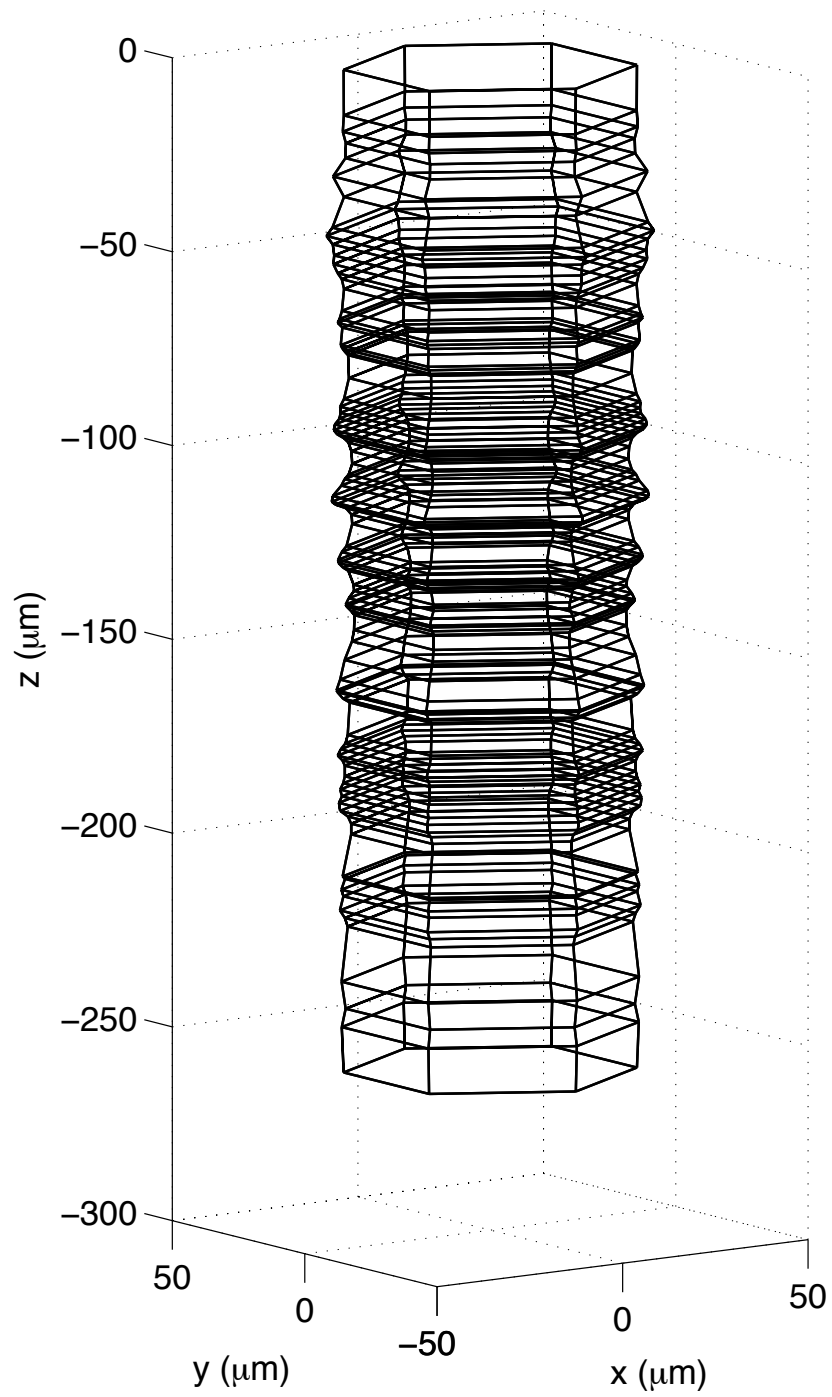


Figure S.1. Polyhedron representing Crystal I.

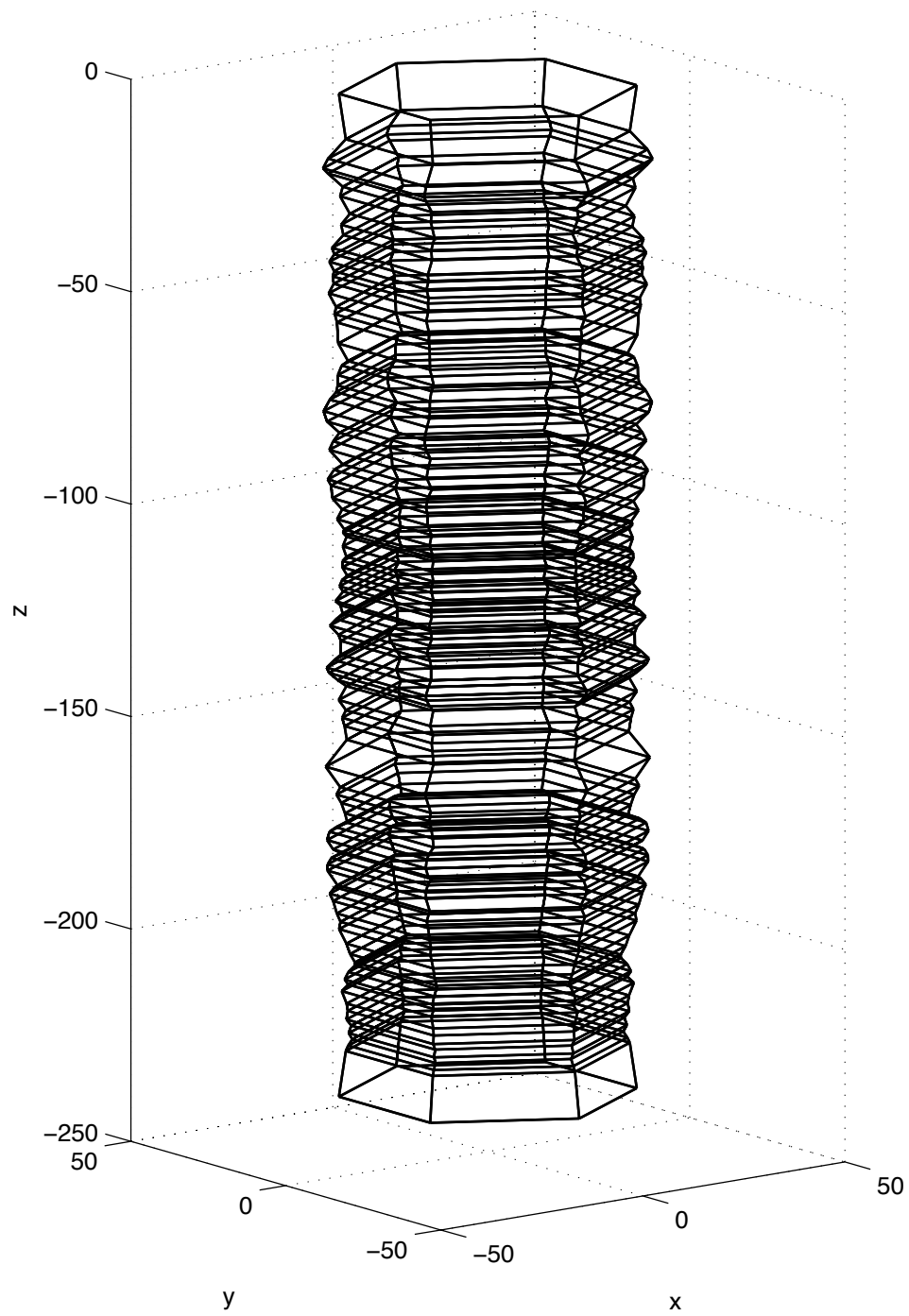


Figure S.2. Polyhedron representing Crystal II.

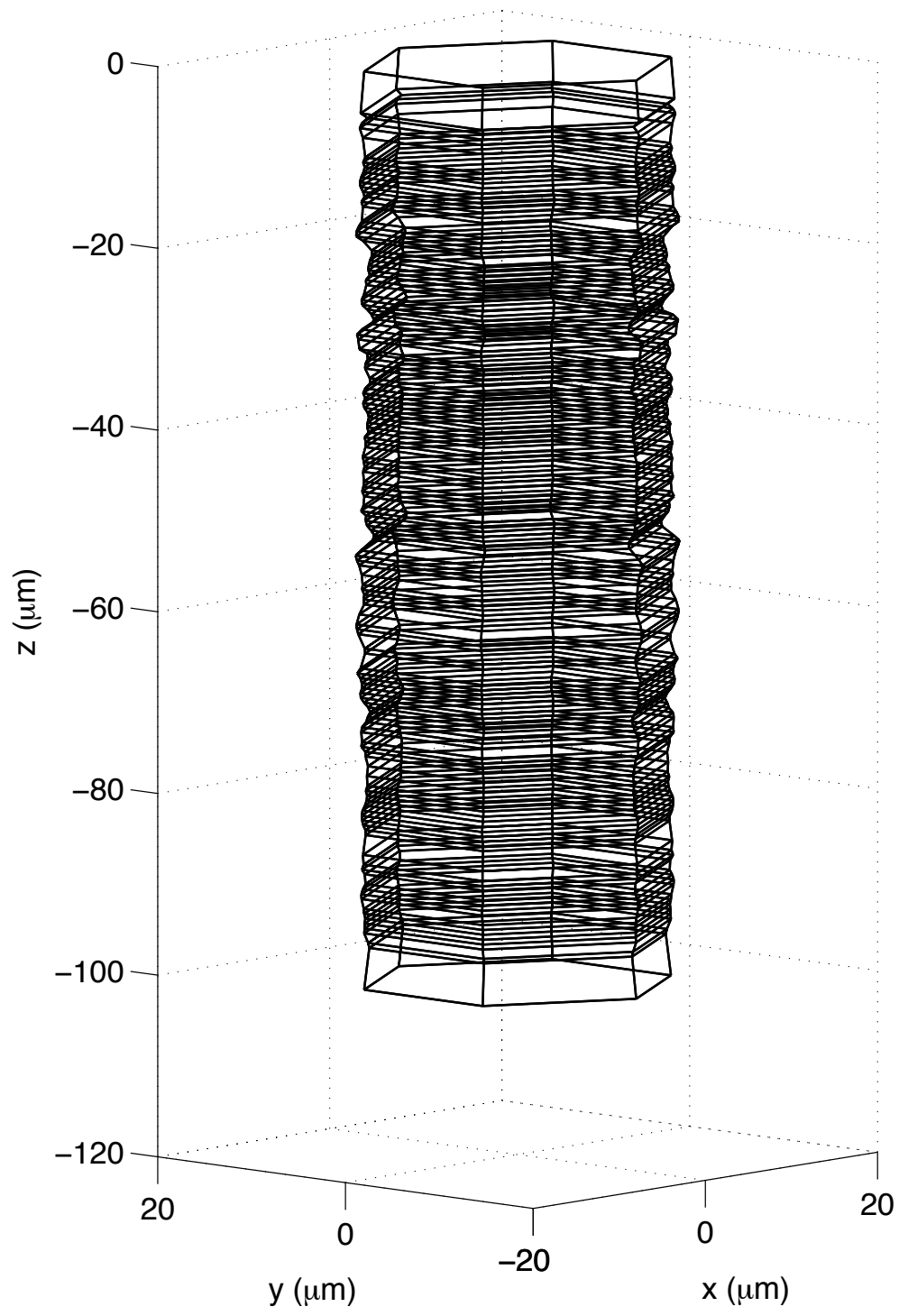


Figure S.3. Polyhedron representing Crystal III.

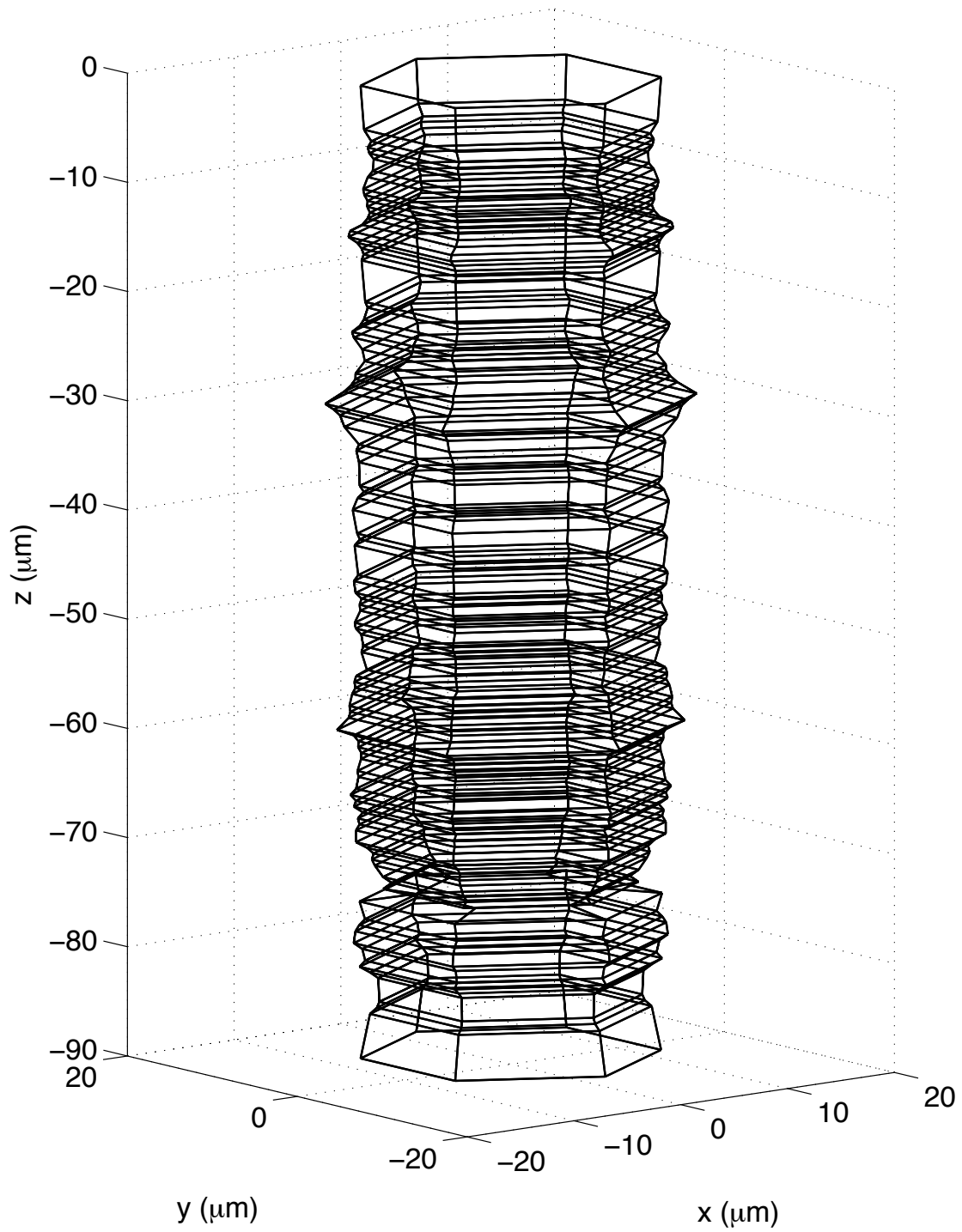


Figure S.4. Polyhedron representing Crystal IV.

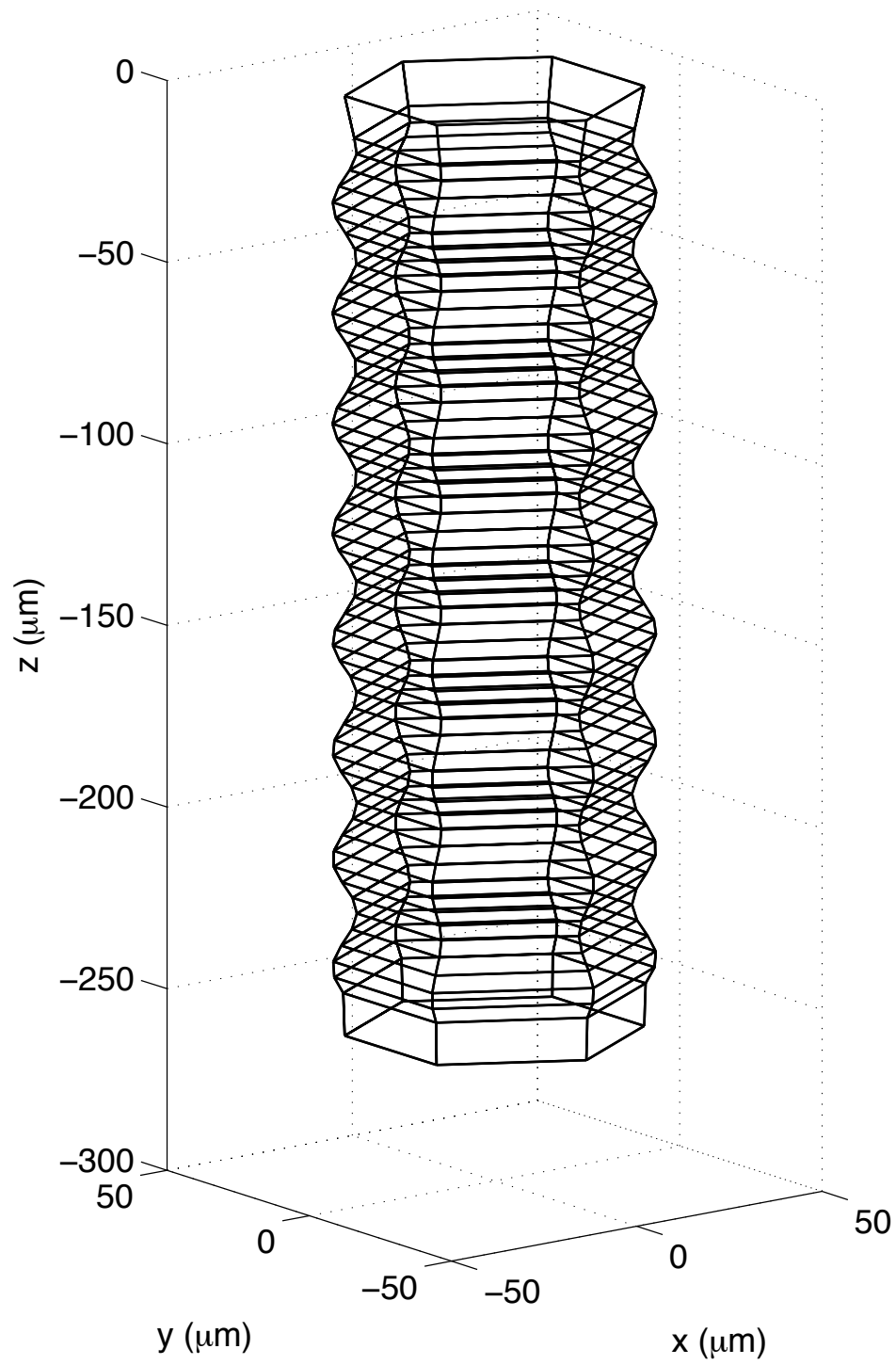


Figure S.5. Polyhedron representing sinusoidal surface roughness.

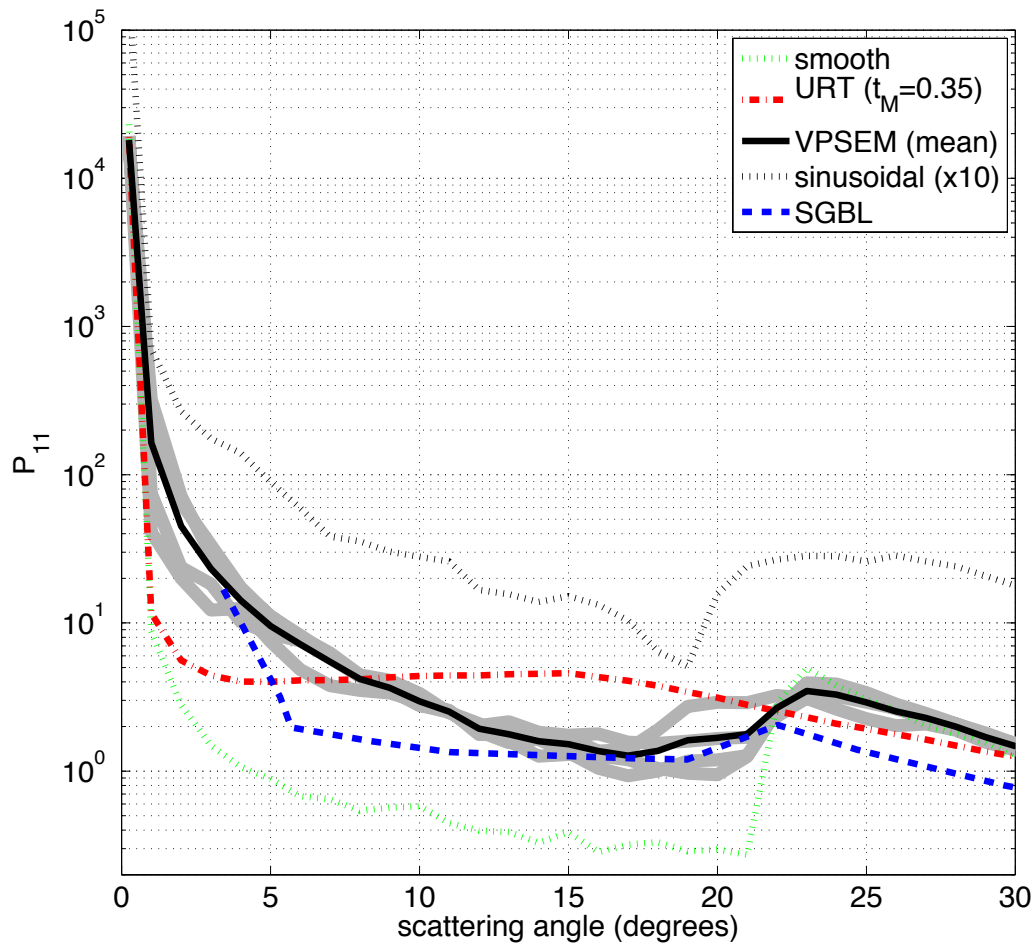


Figure S.6. Re-plotted view of the scattering phase function displayed as Fig. 7 of the main paper.