A simple isohedral tiling of three-dimensional space by infinite tiles and with symmetry $Ia$.

Summary: A tiling of space by tiles that have all hexagonal faces and are infinite in one direction is described. The tiling is simple (four tiles meet at each vertex, three at each edge and two at each face) and carries a 4-connected net whose vertices are the lattice complex $S^*$ with symmetry $Ia3d$. The tiling is closely related to the densest cubic cylinder packing, $\Gamma$. It is shown that the other invariant cubic lattice complexes unique to $Ia3d$ ($Y^{**}$ and $V^*$) are also related to the same cylinder packing.

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