Supporting Information

EuSn$_2$As$_2$: An Exfoliatable Magnetic Layered Zintl-Klemm Phase

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![Figure S1. Powder XRD Rietveld refinement results for EuSn$_2$As$_2$ using TOPAS.](image)

Table S1. Selected bond lengths based on the refined EuSn$_2$As$_2$ structure.

<table>
<thead>
<tr>
<th>Bond Length (Å)</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Sn-As (3x)</td>
<td>2.7761(3)</td>
</tr>
<tr>
<td>Eu-As (6x)</td>
<td>3.1019(4)</td>
</tr>
</tbody>
</table>
**Figure S2.** X-Ray Fluorescence verification of the Eu:Sn and Sn:As stoichiometry in EuSn$_2$As$_2$. Different ratios of Eu$_2$O$_3$ and elemental Sn (Eu:Sn) and elemental Sn and As (Sn:As) were used to prepare a standard calibration curve.

**Figure S3.** Field-cooled temperature-dependent magnetic susceptibility of EuSn$_2$As$_2$ with the $a/b$-axis (blue) and $c$-axis (red) parallel to the field showing the standard deviation.
Figure S4. Curie-Weiss fit corresponding to the ZFC inverse susceptibility of the EuSn$_2$As$_2$ crystal with its c-axis oriented parallel to the applied 0.01 T field.

Figure S5. Temperature-dependent magnetic susceptibility of EuSn$_2$As$_2$ with the c-axis parallel to the applied field of 5T.
Figure S6. AFM images and height profiles of mechanically-exfoliated EuSn₂As₂ onto 285 nm SiO₂/Si.