**Crystalline Data:** Cubic.  
**Point Group:** 4/m 3 2/m. Grains, to 10 μm, acicular to equant, within narrow veinlets.

**Physical Properties:** Hardness = 7–7.5  
D(meas.) = ~4  
D(calc.) = 4.00

**Optical Properties:** Semitransparent.  
**Color:** Purple, pale yellowish brown, colorless; purple in thin section.  
**Optical Class:** Isotropic.  
**n = n.d.**

**Cell Data:**  
**Space Group:** Ia3d. a = 11.524–11.543  
**Z = 8**

**X-ray Powder Pattern:** Coorara meteorite; * = overlap with goethite impurity. (ICDD 25-843).  
2.575 (100*), 2.881 (70), 1.540 (60), 2.454 (45*), 1.597 (40), 2.262 (35*), 2.352 (30)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiO₂</td>
<td>52.0</td>
<td>54.89</td>
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<tr>
<td>TiO₂</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Al₂O₃</td>
<td>2.6</td>
<td>4.61</td>
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<tr>
<td>Cr₂O₃</td>
<td>0.68</td>
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<tr>
<td>FeO</td>
<td>16.9</td>
<td>8.64</td>
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<tr>
<td>NiO</td>
<td>0.04</td>
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<tr>
<td>MgO</td>
<td>27.5</td>
<td>30.99</td>
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<tr>
<td>CaO</td>
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<tr>
<td>Na₂O</td>
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<tr>
<td>K₂O</td>
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</tbody>
</table>

Total 100.42  
[100.76]

(1) Coorara meteorite; by electron microprobe, average of five analyses; original analysis Si 24.3%, Al 1.4%, Cr 0.45%, Fe 13.1%, Mg 16.6%, Ni 0.03%, Na 0.5%, here recalculated to oxides; corresponds to (Mg₂.98Na₀.07Si₀.78Fe²⁺₀.50Al₀.38Mg₀.32)Σ=3.0si₃₀.08cr₀.03Si₁₂. (2) Pampa del Infierno meteorite; by electron microprobe, original total given as 100.77%; corresponds to (Mg₂.88Ca₀.12)Σ=3.00(Si₀.78Fe²⁺₀.50Al₀.38Mg₀.32)Σ=1.98Si₃₀.08O₁₂.

**Mineral Group:** Garnet group.

**Occurrence:** Formed from low-calcium, high-aluminum pyroxene, olivine, and shock-induced glass, by high-pressure impact metamorphism in bolides.

**Association:** Pyroxene, ringwoodite, olivine, kamacite, goethite, troilite.

**Distribution:** In the Coorara, Catherwood, Pampa del Infierno, Tenham, and Peace River chondritic meteorites.

**Name:** For Alan Major, who assisted A.E. Ringwood in the high-pressure synthesis of garnet from pyroxene.

**Type Material:** National Museum of Natural History, Washington, D.C., USA, 122379.

**References:**  

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