Rudashevskyite  (Fe, Zn)S

Crystal Data: Cubic.  *Point Group*: 4 3m. As xenomorphic grains, to 120 μm.

*Hardness*: n.d.  
*VHN*: 313-383, 353 average (20 g load).  
*D(meas.)* = n.d.  
*D(calc.)* = 3.79

*Streak*: Brown-black.  
*Luster*: Resinous to submetallic.  
*Optical Class*: Isotropic.

Optical Data:  

Cell Data: *Space Group*: 4 3m.  
*a* = 5.426(2)  
*Z* = 4

X-ray Powder Pattern: Indarch enstatite chondrite meteorite.  
3.130 (100), 1.919 (50), 1.634 (40), 1.246 (30), 1.107 (30), 1.045 (30), 2.714 (10)

Chemistry:  

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>37.1</td>
<td>30.13</td>
</tr>
<tr>
<td>Zn</td>
<td>24.7</td>
<td>35.28</td>
</tr>
<tr>
<td>Mn</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Cu</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>35.3</td>
<td>34.60</td>
</tr>
<tr>
<td>Total</td>
<td>99.9</td>
<td>100.01</td>
</tr>
</tbody>
</table>

(1) Indarch enstatite chondrite meteorite; average of 31 electron microprobe analyses; corresponds to  
(Fe<sub>0.61</sub>Zn<sub>0.35</sub>Mn<sub>0.04</sub>Cu<sub>0.01</sub>)<sub>Σ=1.00</sub>S<sub>1.00</sub>.  
(2) (Fe, Zn)S  
Fe:Zn = 1:1.

Polymorphism & Series: Partial solid-solution series with sphalerite.

Occurrence: An accessory phase in enstatite chondrite meteorites.

Association: Clinoenstatite, kamacite, troilite, oldhamite, niningerite, schreibersite, roedderite.

Distribution: From the Indarch enstatite chondrite meteorite.

Name: Honors Nickolay S. Rudashevsky (b. 1944), St. Petersburg, Russia, for his contributions to the study of ore minerals.

Type Material: Mineralogical Museum, Department of Mineralogy, St. Petersburg State University, St. Petersburg, Russia.

Rudashevskyite, the Fe-dominant analogue of sphalerite, a new mineral: Description and crystal structure.  
Amer. Mineral., 93, 902-909.