Pašavaite 

\[ \text{Pd}_3\text{Pb}_2\text{Te}_2 \]

**Crystal Data:** Orthorhombic. \textit{Point Group:} 2/m 2/m 2/m. As rounded irregular grains, to 0.02 mm, included in polarite.

**Physical Properties:** 
- **Cleavage:** Weak on \{001\}. 
- **Fracture:** n.d. 
- **Tenacity:** Brittle. 
- Hardness = 2 \[ \text{VHN} = 233 \text{ (25 g load).} \]
- \( D(\text{meas.}) = 9.9 \quad D(\text{calc.}) = 10.18 \)

Most properties determined on synthetic material.

**Optical Properties:** 
- **Opaque.** 
- **Color:** Gray. 
- **Streak:** Gray; pale pink with a brownish tint in plane polarized light. 
- **Luster:** Metallic. 
- **Pleochroism:** Brownish to light pink. 
- **Anisotropism:** Strong.
- \( \text{Optical Class:} \text{n.d.} \)
- \( R_1 - R_2: (470) 49.9-42.4, (546) 51.8-44.6, (589) 52.2-45.7, (650) 52.8-46.9 \)

**Cell Data:** 
- **Space Group:** Pmnn. 
- \( a = 8.599(1) \quad b = 5.9381(6) \quad c = 6.3173(8) \quad Z = 2 \)

**X-ray Powder Pattern:** Synthetic \( \text{Pd}_{2.96}\text{Pb}_{2.01}\text{Te}_{2.02} \),
\( 3.0495 \text{ (100), 2.1637 \text{ (71), 2.5456 \text{ (63), 2.2786 \text{ (42), 1.8906 \text{ (42), 6.3152 \text{ (34), 2.4424 \text{ (34) }}}} \)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
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<tbody>
<tr>
<td>Pd</td>
<td>31.51</td>
<td>32.17</td>
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<tr>
<td>Pb</td>
<td>41.54</td>
<td>41.78</td>
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<tr>
<td>Bi</td>
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<td></td>
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<tr>
<td>Te</td>
<td>25.75</td>
<td>25.93</td>
</tr>
<tr>
<td>Total</td>
<td>98.99</td>
<td>99.88</td>
</tr>
</tbody>
</table>

(1) Talnakh deposit, Noril’sk-Talnakh mining camp, Russia; average of 4 electron microprobe analyses, corresponding to \( \text{Pd}_{2.96}(\text{Pb}_{2.01}\text{Bi}_{0.01})\text{Te}_{2.02} \). (2) Average of 7 electron microprobe analyses of synthetic material, corresponding to \( \text{Pd}_{2.99}\text{Pb}_{2.00}\text{Te}_{2.01} \).

**Occurrence:** Likely formed from late-stage residual liquids segregated from a Ni-Cu sulfide melt derived from a highly differentiated mafic intrusion.

**Association:** Polarite, sperrylite.

**Distribution:** Talnakh deposit, Noril’sk-Talnakh mining camp, Taimyr autonomous District, Russia.

**Name:** Honors Jan Pašava (b. 1957), a geologist with the Czech Geological Survey.

**Type Material:** Department of Mineralogy, National Museum, Prague, Czech Republic (catalog no. P1p 15/2007).

**References:**