Dzhalindite $In(OH)_3$

©2001-2005 Mineral Data Publishing, version 1

Crystal Data: Cubic. Point Group: $2/m \overline{3}$. Massive.

Physical Properties: Hardness = n.d. D(meas.) = 4.38 (synthetic). D(calc.) = 4.344

Optical Properties: Semitransparent. *Color*: Yellow-brown; light yellow in transmitted light; dark gray in reflected light.

Optical Class: Isotropic. n = 1.725(2)

Cell Data: Space Group: Im3 (synthetic). a = 7.9743(6) Z = 8

X-ray Powder Pattern: Dzhalinda deposit, Russia.

3.96 (10), 2.80 (9), 1.778 (9), 1.624 (7), 2.290 (6), 1.324 (6), 4.36 (5)

Chemistry:

	(1)	(2)	(3)
In	63.06	61.59	69.24
Sn		7.36	
Fe	5.06	1.74	
Zn		1.65	
O			14.47
\mathbf{S}	0.21		
${\rm H_2O}$			16.29
Total	•		100.00

(1) Dzhalinda deposit, Russia; by electron microprobe, average of 67 analyses. (2) Mount Pleasant, Canada; by electron microprobe, average of three analyses. (3) In(OH)₃.

Occurrence: Probably of secondary origin from its occurrence along fractures through primary hydrothermal minerals associated with brecciated felsic volcanic rocks (Dzhalinda deposit, Russia); in sulfides hosted in greisenized granite (Mangabeira, Brazil).

Association: Indite, cassiterite, quartz (Dzhalinda deposit, Russia); sphalerite, galena, chalcopyrite, stannite, calcite, quartz (Mount Pleasant, Canada); roquesite, sphalerite, chalcopyrite, digenite, arsenopyrite, cassiterite, scorodite (Mangabeira, Brazil).

Distribution: In the Dzhalinda tin deposit, Little Khingan Ridge, Far Eastern Region, Russia. From Mount Pleasant, New Brunswick, Canada. In the USA, at the Flambeau mine, southwest of Ladysmith, Rusk Co., Wisconsin. Found in the Mangabeira tin deposit, Goiás, Brazil.

Name: For the occurrence in the Dzhalinda tin deposit, Russia.

Type Material: Mining Institute, St. Petersburg, 106a/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 65279.

by X-ray and neutron diffraction methods. J. Inorg. Nucl. Chem., 41, 277–282.

References: (1) Genkin, A.D. and I.V. Murav'eva (1963) Indite and dzhalindite – new indium minerals. Zap. Vses. Mineral. Obshch., 92, 445–457 (in Russian). (2) (1964) Amer. Mineral., 49, 439–440 (abs. ref. 1). (3) Vlasov, K.A., Ed. (1966) Mineralogy of rare elements, v. II, 588–589. (4) Sutherland, J.K. (1971) A second occurrence of dzhalindite. Can. Mineral., 10, 781–786. (5) Mullica, D.F., G.W. Beall, and W.O. Milligan (1979) The crystal structure of cubic In(OH)₂

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of Mineral Data Publishing.