Cookeite

\( \text{LiAl}_{4}(\text{Si}_{3}\text{Al})\text{O}_{10}(\text{OH})_{8} \)

(\text{1}) Kalbinsky Range, Ural Mountains, Russia; corresponds to (Li\(_{1.11}\)Na\(_{0.02}\)K\(_{0.01}\))\(_{\Sigma = 1.14}\) (Al\(_{3.89}\)Fe\(^{3+}\)\(_{0.05}\)Ca\(_{0.04}\)Mg\(_{0.03}\))\(_{\Sigma = 4.01}\) (Si\(_{2.95}\)Al\(_{1.05}\))\(_{\Sigma = 4.00}\)O\(_{10}\) (OH)\(_{8}\). (2) Djalair deposit, “Middle Asia,” Russia; corresponds to Li\(_{0.7}\) (Al\(_{3.96}\)Fe\(^{3+}\)\(_{0.09}\)Fe\(^{2+}\)\(_{0.11}\))\(_{\Sigma = 4.09}\) (Si\(_{3.35}\)Al\(_{0.62}\))\(_{\Sigma = 4.00}\)O\(_{10}\) (OH)\(_{7.65}\).

Mineral Group: Chlorite group.

Occurrence: A late-stage hydrothermal alteration product of lithium-bearing minerals in pegmatites; a primary hydrothermal vein mineral.

Association: Lepidolite, spodumene, tourmaline, petalite, quartz, albite, microcline.


Name: For Josiah B. Cooke, Jr. (1827–1894), American mineralogist and chemist, Harvard University, Cambridge, Massachusetts, USA.

Type Material: Yale University, New Haven, Connecticut, USA, 2.3728 (holotype material probably exhausted in analysis).

References: (1) Dana, E.S. (1892) Dana’s system of mineralogy, (6th edition), 625. (2) Deer, W.A., R.A. Howie, and J. Zussman (1963) Rock-forming minerals, v. 3, sheet 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.