

BPO021-02

Room: 301B

Time: May 25 09:15-09:30

Deep-sea spherules from Upper Triassic to Lower Jurassic pelagic chert in the Mino terrane, Inuyama area, Japan

Kenichi Harada^{1*}, Tetsuji Onoue¹

¹Kagosima University

We report the discovery of deep-sea spherules from Upper Triassic to Lower Jurassic pelagic chert succession, considered as having accumulated on the ocean floor in an open-ocean realm. Spherules were discovered from the Upper Triassic to lower Jurassic radiolarian chert succession in the Mino terrane, Inuyama area, Southwest Japan. Our microscopic and SEM examinations recognized small black magnetic spherules embedded in siliceous claystone partings within radiolarian chert beds. 488 grams of the 75 siliceous claystone samples from the Upper Triassic to Lower Jurassic chert succession yield 86 deep-sea spherules. Spherules are mainly composed of iron-type (I-type) spherules described from the pelagic red clays on the Pacific ocean floor. I-type spherules are characterized by polygonal, dendritic, and interlocking textures. Most of the I-type spherules are perfectly spherical shape. EDX observation of the I-type spherules revealed that exterior surfaces of the spherules are rich in Fe with subordinate amount of Al, Si, and K. This suggests that I-type spherules from the Triassic to Jurassic chert have been altered as indicated by the presence of Al, Si, and K on the surface of the spherules.