

## Synthesis and structure of solvate hexabromoosmate sodium with dimethyl sulfoxide $[\text{Na}_2(\text{DMSO})_8][\text{OsBr}_6]$

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### Abstract

Interaction of hexabromoosmate sodium with dimethyl sulfoxide produced solvate hexabromoosmate sodium with dimethyl sulfoxide  $[\text{Na}_2(\text{DMSO})_8][\text{OsBr}_6]$  (**I**), which structure was established by X-ray analysis. Crystal **I** consists of centrosymmetric octahedral anions  $[\text{OsBr}_6]^{2-}$  (Os-Br 2.4796(9), 2.4799(9), 2.4885(11) Å; BrOsBr 180°, 89.72(4)-90.26(4)°) and centrosymmetric binuclear cations  $[\text{Na}_2(\text{DMSO})_8]^{2+}$ , where sodium atoms are linked by bridging oxygen molecules of dimethylsulfoxide (Na...DMSO...Na 2.353(7), 2.381(7) Å). Each sodium atom is coordinated by three oxygen atoms of terminal molecules of dimethyl sulfoxide (Na...OSMe<sub>2</sub> 2.176(9), 2.341(8), 2.380(8) Å). Cycles Na<sub>2</sub>O<sub>2</sub> flat, angle NaONa is 97.9(2)°.