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O₂ adsorption on PtSb₂ (100) surface

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In order to understand the oxidation of the PtSb₂ minerals by either weathering or exposure to air, we considered the adsorption of oxygen molecules on mineral surfaces. The adsorption properties will give more insight into the interaction of the oxygen with the atoms on the surface. Generally, minerals are exposed to atmospheric air during crushing or storage. It had been reported previously that oxidation depresses sulphide minerals, resulting in poor grade-recovery performance and the brittle nature of PtSb₂ may result in difficulty of its recovery from such ores. The surface energy of (100) has been found to be 0.920 Jm⁻² as compared to (110) 1.194 Jm⁻² and (111) 0.939 Jm⁻². We performed oxidation on the PtSb₂ (100) surface where O₂ was adsorbed in a peroxy, superoxide and Pt-O-O-Sb bridging on the surface Pt and Sb atoms.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

Consent on use of personal information: Abstract Submission

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