

THE SULPHURIC INTERCEPTION AS ORE-FORMING FACTOR

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Elementary sulphur is the most interesting component among magmatic gases due to its physical properties. As its critical temperature of 1040 C is finding oneself in the temperature interval of possible magmas existence, there should exist a zone or a system of zones of liquid sulphur on the way of gases movement. The bottom border of each zone is determined by an isothermal surface of 1040 C on the depths exceeding 700 m. The top border of each zone is situated closer to the earth surface and is determined by isobaric surface which position depends on magma temperature or by isothermal surface of repeated increasing of temperature over 1040 C. Uplifting together with any magmatic gases elementary sulphur must be separated from moving gas phase into liquid state as soon as it is crossing the bottom border of each zone, but sulphur should turn itself into gas phase again above top surfaces. Liquid sulphur is located in the zone along the way of moving gases in the shape of concentrations of drops and the thin-film infill of cracks. This sulphur liquation's zones present itself powerful geochemical barriers for capture and accumulation of metals, transported by magmatic gases. During of metals accumulation the density of the sulphuric liquid grows, and it begins migrating into lower-lying horizons of magma, where it occurs thermal separation of sulphur-sulphide liquid drops into pure elementary sulphur, which is turned into gaseous condition and comes back into the liquation zone and pure sulphide melt.