

MID-OCEANIC RIDGES FLUID- MAGMATIC SYSTEMS

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Mineralogy and geochemistry of basalts, metalliferous sediments (MS), hydrothermal plumes suspended matter in active centers on the East Pacific Rise (EPR), and Mid Atlantic Ridge, were studied. Modern hydrothermal activity is considered as a stage of the fluid-magmatic systems development. High contents of H₂O, CO₂ and autometasomatic quartz-hydromica-chlorite intergrowth in basaltic glass; sulphide and metallic nodules, native metals (NM) and intermetal compounds (IM) in basalts; olivines, pyroxenes, chrompicotite, carborundum, periclase, NM and IM in volcanogenic material of the MS; graphite, NM and IM in the suspended matter and sulphide ores; metasomatically altered sediments on the flanks of the axial hydrothermal fields are indicators of intratelluric fluids influence. Pneumatolitic-hydrothermal activity on the EPR, 130N revealed in area of 20000km². The bodies of metasomatically altered sediments (aposomes) take up the half of this area. The metasomatic type of the bodies is ferro-magnesian. Their mineral and geochemical zonation make a close approach to zonation of Kuroko type deposits in Japan, which were formed in the epoch of Earth degazation enhance. In aposomes were established Au-bearing sediments (Au up to 1.7 ppm); high contents of Hg (up to 180 ppb) and Corg. (up to 2.5 %); evidences of the sulphide mineralisation of the hydrothermal-metasomatic type.

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