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Crustal structure and tectonic model of the Arctic region

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ABSTRACT

We present a new model of the crustal and tectonic structure of the Arctic region north of 60 N latitude, constrained as a part of the international Atlas of Geological Maps of the Circumpolar Arctic under the aegis of the Commission for the Geological Map of the World. The region is largely formed by (i) Archean-Paleoproterozoic shields and platforms, (ii) orogenic belts of the Neoproterozoic to the Late Mesozoic ages overlain by platform and basin sediments, (iii) Cenozoic rift structures formed in part as a consequence of seafloor spreading in the North East Atlantic Ocean with propagation into the Central Arctic Ocean along the Gakkel Ridge, (iv) deep-water ocean basins and shallow-water shelves of the North Atlantic

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