



# **World Map Showing Surface and Subsurface Distribution, and Lithologic Character of Middle and Late Neoproterozoic Rocks**

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## Introduction

The map was prepared to outline the basic information on where Neoproterozoic rocks are present in the World, and of the lithologic character of these rocks. The information provides a better understanding of major Neoproterozoic tectonic subdivisions useful in paleogeographic and plate tectonic reconstructions.

The time frame of the map is within the middle and late Neoproterozoic from approximately 870 to 540 Ma and is after widespread Mesoproterozoic Grenville-age collisional events that are considered to have formed the hypothetical supercontinent of Rodinia. Much of the time represented by the map is interpreted to be during the fragmentation of Rodinia.

The recognition of Neoproterozoic rocks is commonly difficult because of limited isotopic or palaeontological dating. Thus, some rocks shown on the map could be older or younger than the age indicated. However, at the scale of the map the the problem may be minor. Enough information seems to be available to indicate the general age of the rocks. Many of the successions contain diamictite deposits considered to be glaciogenic and dated as middle or late Neoproterozoic. These deposits thus show a rough correlation of middle and late Neoproterozoic rocks of the world. The map is a Richardson map projection, except for Antarctica which is a polar projection.

The map was prepared from about 650 references, shown here under "Sources of Information", used to outline distribution patterns, determine rock types, and provide information on the regional and local geologic framework of the rocks. The focus of the

references is on the geologic information needed to prepare the map. Other information, such as plate tectonic reconstructions or paleomagnetic studies is generally not included.

The “Sources of Information” lists references alphabetically for each of 14 regions as shown below. In brackets is a code for each area. These codes provide help in locating the specific regions in the references. The areas and codes are listed below:

Africa and Madagascar [AF]

Antarctica (ANT)

Australia [AUS]

Baltica [(Europe, Britain, Ireland, Eastern European Platform, Ural Mountains) [BAL]  
Cadomian, Avalonian and related rocks (widely dispersed magmatic arc rocks primarily in Europe and North America [CAD]

Central Asia [CAS]

China and adjacent regions (CH)

Gondwana, references to regional studies of Gondwana [GON]

India, Sri Lanka, Afghanistan, Pakistan, and adjacent regions (IN)

Laurentia (North America, Greenland, and related areas in North Atlantic) [LA]

Middle-East, Iran, Afghanistan, and Pakistan, and adjacent regions

Regional or global references [REG]

South America [SA]

Siberia, including Kolyma, and adjacent regions [SI]

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