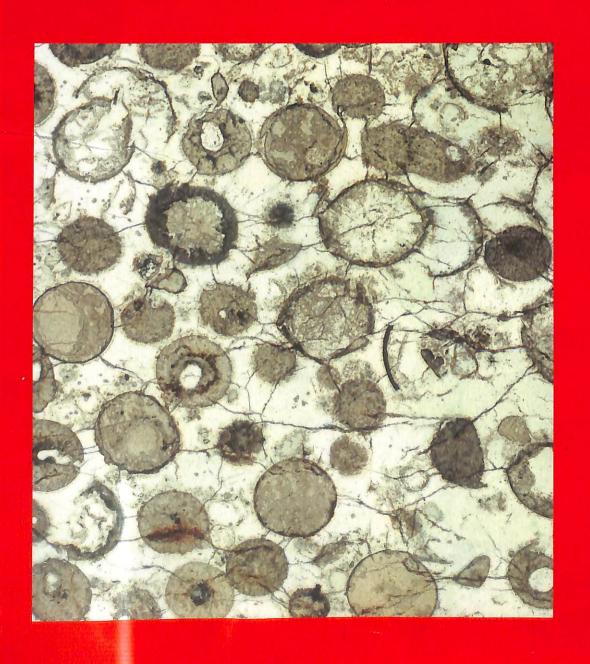


# PRECAMBRIAN RESEARCH



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#### Archean to Proterozoic Evolution of the North China Craton

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#### CAPTION FOR COVER PHOTOGRAPH

3,243 million-year-old spherules in the Fig Tree Group, Barberton Greenstone Belt, South Africa, formed as a result of large meteorite impacts on the early Earth. The 35-cm-thick spherule bed (S3) is composed of nearly pure spherules produced during the condensation of an impact-produced rock vapor cloud. The estimated diameter of the bolide was 20-50 km. The spherules, 0.5-1.5 mm in diameter in the photo, include silica-(clear), phyllosilicate- (gray), and rutile/anatase-rich (black) varieties; massive and layered types; and a few originally hollow spherules. This is one of four spherule layers in the Barderton Belt, ranging from 3,470-3,243 Ma, that represent the oldest known impact deposits and provide direct evidence for a significant flux of large impactors as late as 3.2 Ga. Photograph: D.R. Lowe