

APPENDIX

Description of the Samples and Locations

(1) *North Mysore Samples*

- Ng1—Pink granite from Shahpur ($76^{\circ} 50' E$, $16^{\circ} 40' N$), Gulbarga Dt.
Ng2—Grey granite, N. of Thinthini ($76^{\circ} 40' E$, $16^{\circ} 23' N$), Gulbarga Dt.
Ng3—Grey granite, 8 miles from Maski on road to Lingsugur ($76^{\circ} 30' E$, $16^{\circ} 10' N$), Raichur Dt.
Ng4—Granite 30 M.N. of Bellary, near Siriguppa, Bellary Dt.
Ng5—Pink granite, Shahabad, base of Bhima river, Gulbarga Dt.
Ng6—Granite from Horeguppa ($75^{\circ} 22' E$, $14^{\circ} 15' N$) on Shikaripur-Shimoga Road.

(2) *Chitradurga Samples*

- Cg1—Granite with zoned feldspar, 4 miles from Chitradurga on Chandravalli Road, (quartz 35%; K-feldspar 40%; plagioclase 18%; biotite 5%).
Cg2—Hornblende-biotite granite from the same quarry (quartz 30%; K-spar 44%; plag. 16%; hornblende and biotite 8%).
Cg3—Granite from quarry 3 miles from Chitradurga on Holalkere Road (quartz 35%; K-spar 40%; plag. 20%; biotite 5%).
Cg4—Fine-grained variety from same quarry, same modal composition.

(3) *Peninsular Gneiss Samples from Bangalore and Vicinity*

IR1, IR2 and IA1—Quarry at the Indian Institute of Science, Bangalore, where the rock types are the Augengneisses (IR1) with modal composition (quartz 15–20%; K-spar 50–55%; plag. 20–25%, biotite 5%) and medium-grained granite IR2 of similar composition. IA1 is an amphibolite enclave (hornblende 50%; feldspar 15%, biotite 5%, rest quartz).

LR1 and LR2 are from the Lal Bagh quarries; the former is a hornblende-biotite gneiss, (quartz 20%; K-spar 25%; plag. 35%, hornblende 15%, rest biotite and accessories), while LR2 is a

medium-grained granite (quartz 35%, K-spar 30%, plag. 30%, biotite 5%).

JR1 is a gneissic granite from Mt. Joy (quartz 15%, K-spar 45%, plag. 25%).

TR1 is a fine-grained granite associated with the foliated gneisses of Tippugondanahalli, 30 km W. of Bangalore. The modal composition is (quartz 20%; K-spar 30%; plag. 40%, biotite 5-10%).

KuR1 is a granite of similar composition from Kunigal (60 km W of Bangalore).

(4) *Samples from Kathriguppe Quarries.* (S.W. of Bangalore, in city limits)

Kg1—Medium-grained quartz diorite (quartz 20%; K-spar 20%; plag. 35%; hornblende 15%, biotite 5%).

Kg2—Coarse-grained grey granite (quartz 20%; K-spar 15%; plag. 45%, biotite 10%).

Kg3—Banded gneiss (quartz 15%; K-spar 55%; plag. 20%; biotite 5%).

Kg4—Augengneiss, caught up in granodiorites of similar composition.

Kg5—Aplite, fine-grained and whitish (quartz 35%, K-spar 30%, plag. 30%).

(5) *Arsikere and Banavar Granites*

Ag1—Grey porphyritic granite on slope of Tirupathy hill, 2 miles from Arsikere (77° 5' E, 14° 5' N) (quartz 20%, K-spar 50%; plag. 20%).

Ag2—Fine-grained granite associated with above.

Ag3—Banded gneiss from Kempusagara, 6 miles N. of Arsikere (quartz 25%; K-spar 45%; plag. 25%, biotite 7%).

Bg1—Light-coloured granite from Gavimutt near Banavar (76° 12' E, 13° 24' N) (quartz 25%, K-spar 45%; plag 25%, biotite 5%).

Bg2—Grey porphyritic granite from same quarry, of similar composition.

Bg3—Gneissic granite in contact with above, and biotite-rich (10%).

(6) Closepet Granite Samples

CR1—Typical granites from Closepet (40 km S.W. of Bangalore) (quartz 20%, K-spar 20%; Plag. 50%, biotite 5%) with pink porphyroblasts of feldspar (CF1), and biotite separate CB1.

MgR1—Medium-grained grey granite from Magadi (40 km W. of Bangalore) (quartz 30%; K-spar 40%; plag. 30%).

SR1—Porphyritic granite from Savandurga (30 km W. of Bangalore) with modal composition similar to CR1.

(7) Charnockite and Associated Gneiss Samples

KdG1—Banded and fine-grained gneiss from Kabbaldurga (77° 11' E, 12° 30' N) with hornblende layers and biotite streaks (quartz 20%, K-spar 25%; plag. 50%, biotite 5%).

KdG2—Medium-grained granite in patches caught up with the gneisses (quartz 30%; K-spar 15%, plag. 45%).

KdCh—Coarse-grained charnockite brownish-grey and greasy-looking (quartz 25%, K-spar 20%; plag. 40%, hypersthene 5%).

HCh1—Acid charnockite in Challapura village near Halagur (77° 15' E, 12° 25' N) (quartz 30%, K-spar 25%, plag. 35%, pyroxene 4%).

HCh2—More coarse-grained charnockite from same outcrop.