

Large-Scale Rotational Motion Within the Main Central Thrust Zone in the Darjeeling-Sikkim Himalaya, India

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Introduction

The figures below provide an overview of the lithologies (ordered from the structurally lowest to highest), samples collected for structural analysis, and the estimated temperature based on microstructures and mineralogy. The figures are a visual summary of the field and petrographic work.

The lithological patterns on the left column for all figures are from the U.S. Geological Survey standards and represent from bottom to top: quartzite, schist, and contorted gneiss to represent both folded gneisses and migmatite. Column is not to scale.

For all figures, GBM = grain boundary migration, BLG = bulging, SGR = sub-grain rotation, UE = undulose extinction, CE = chessboard extinction. Arrows in the column "Transport direction" indicate the direction of hanging wall transport (up is north, down is south, etc) inferred from shear sense indicators

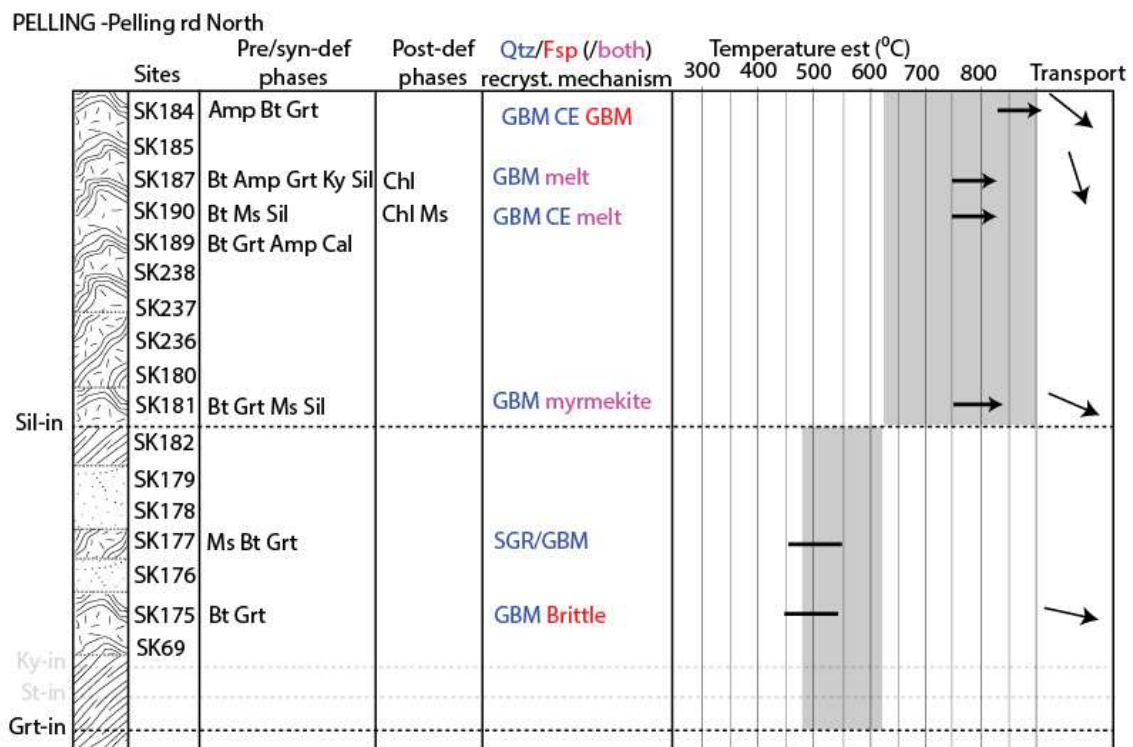


Figure S1. Lithologies, samples and temperature estimates for the Pelling Rd North area, NW quadrant of the Tista Dome.

PELLING - Pelling rd South

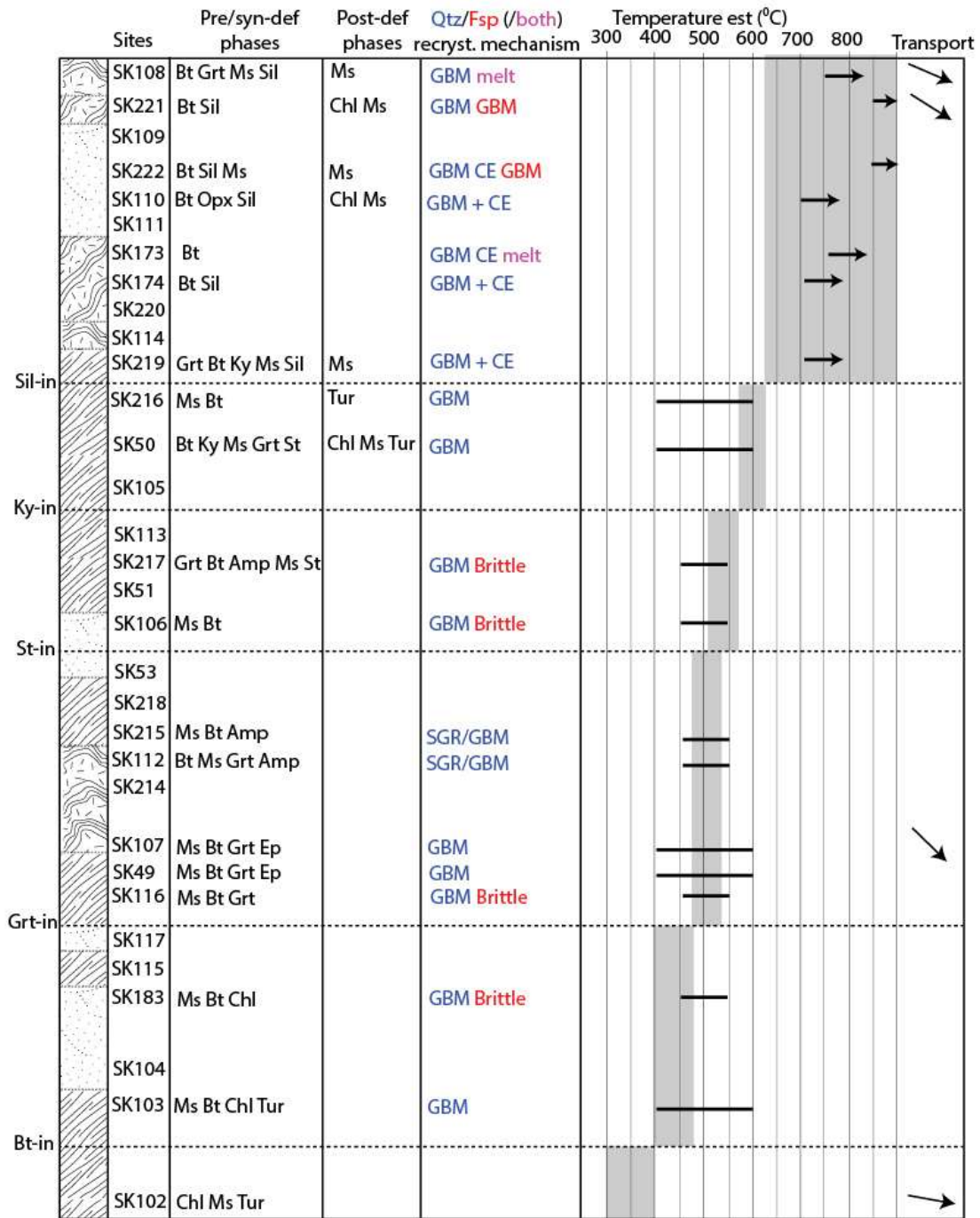


Figure S2. Lithologies, samples and temperature estimates for the Pelling Rd South area, NW quadrant of the Tista Dome.

PELLING - Martam rd

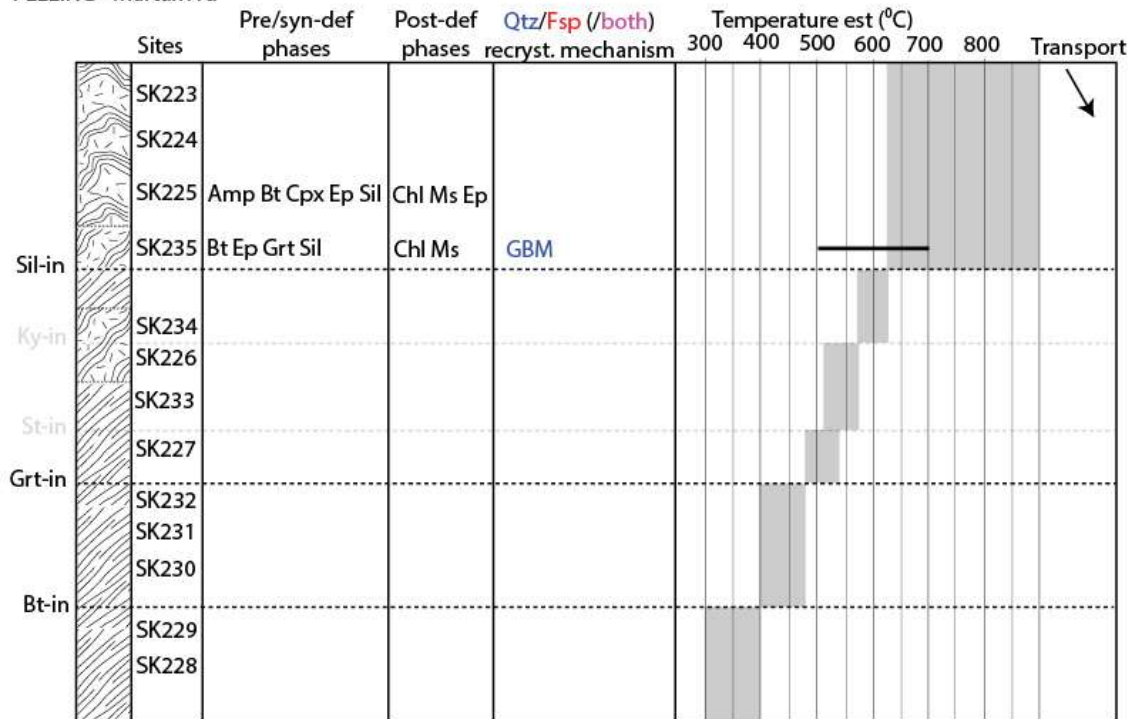


Figure S3. Lithologies, samples and temperature estimates for the Pelling-Martam Rd, NW quadrant of the Tista Dome.

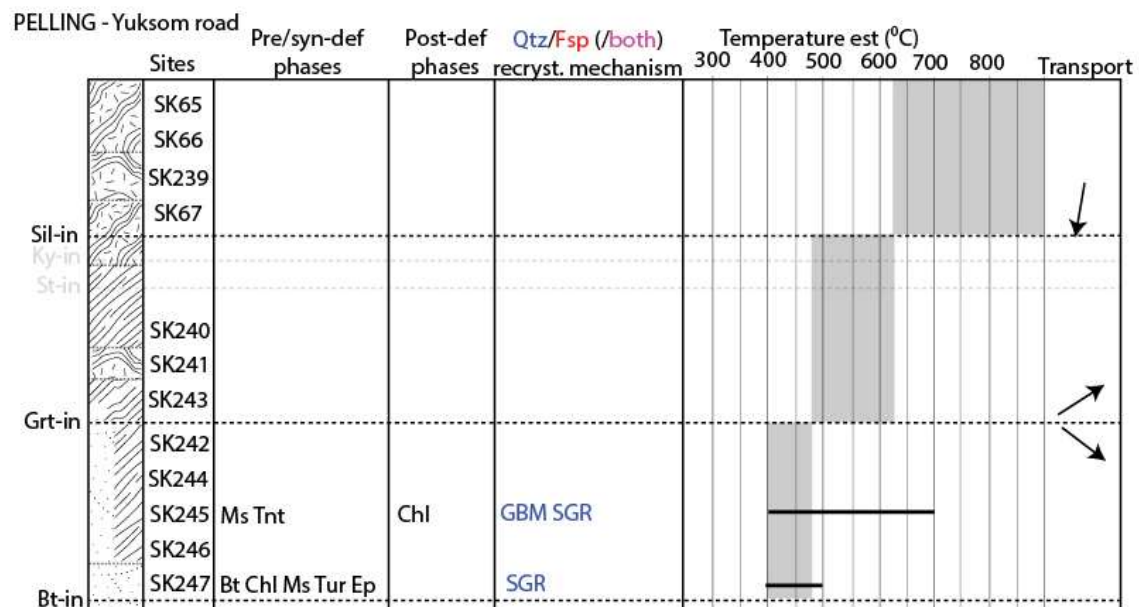


Figure S4. Lithologies, samples and temperature estimates for the Pelling-Yuksom Rd, NW quadrant of the Tista Dome.

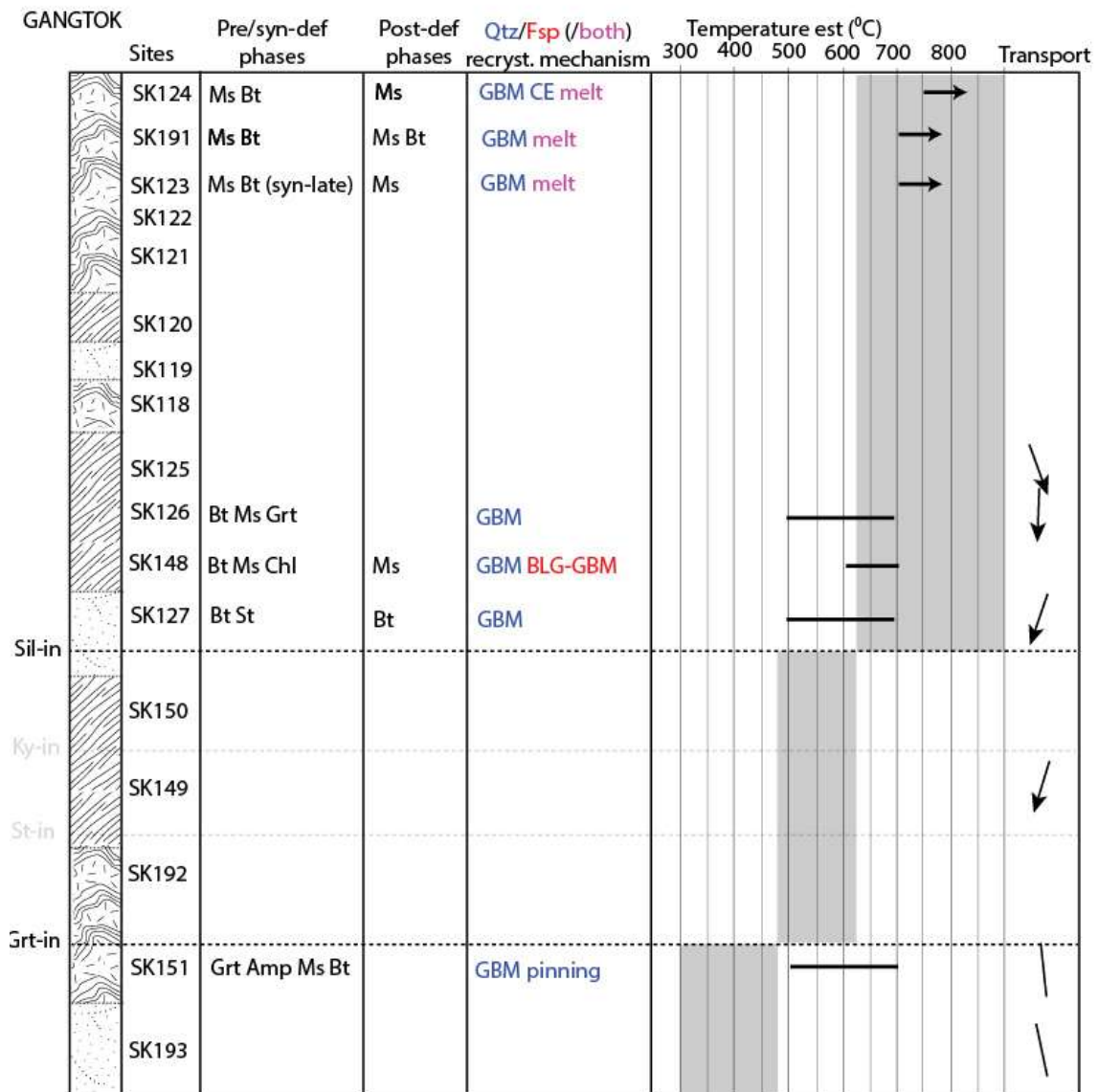


Figure S5. Lithologies, samples and temperature estimates for the Gangtok area, NE quadrant of the Tista Dome.

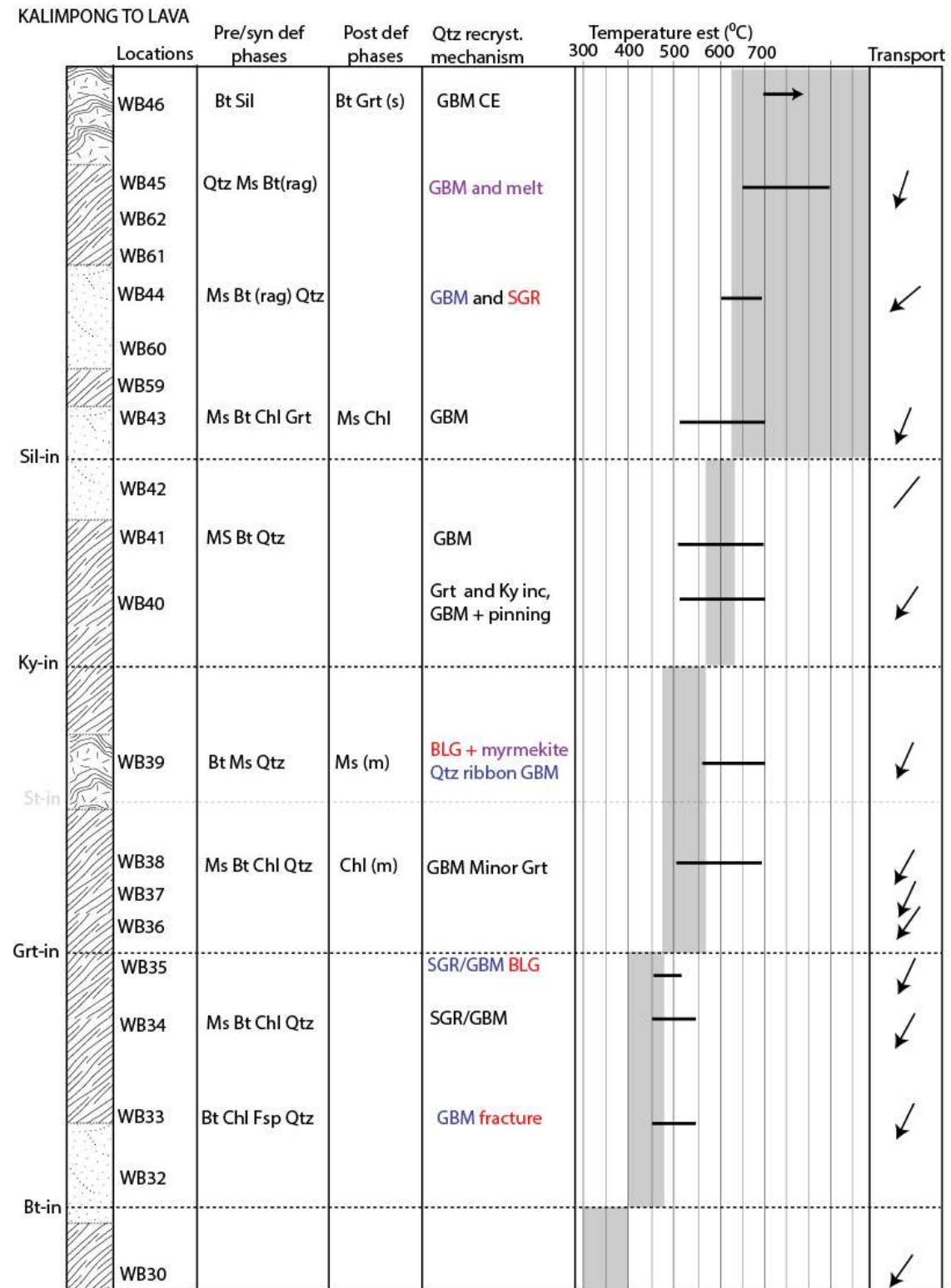


Figure S7. Lithologies, samples and temperature estimates for the Kalimpong to Lava road, SE quadrant of the Tista Dome.

LAVA TO GORUBATANG

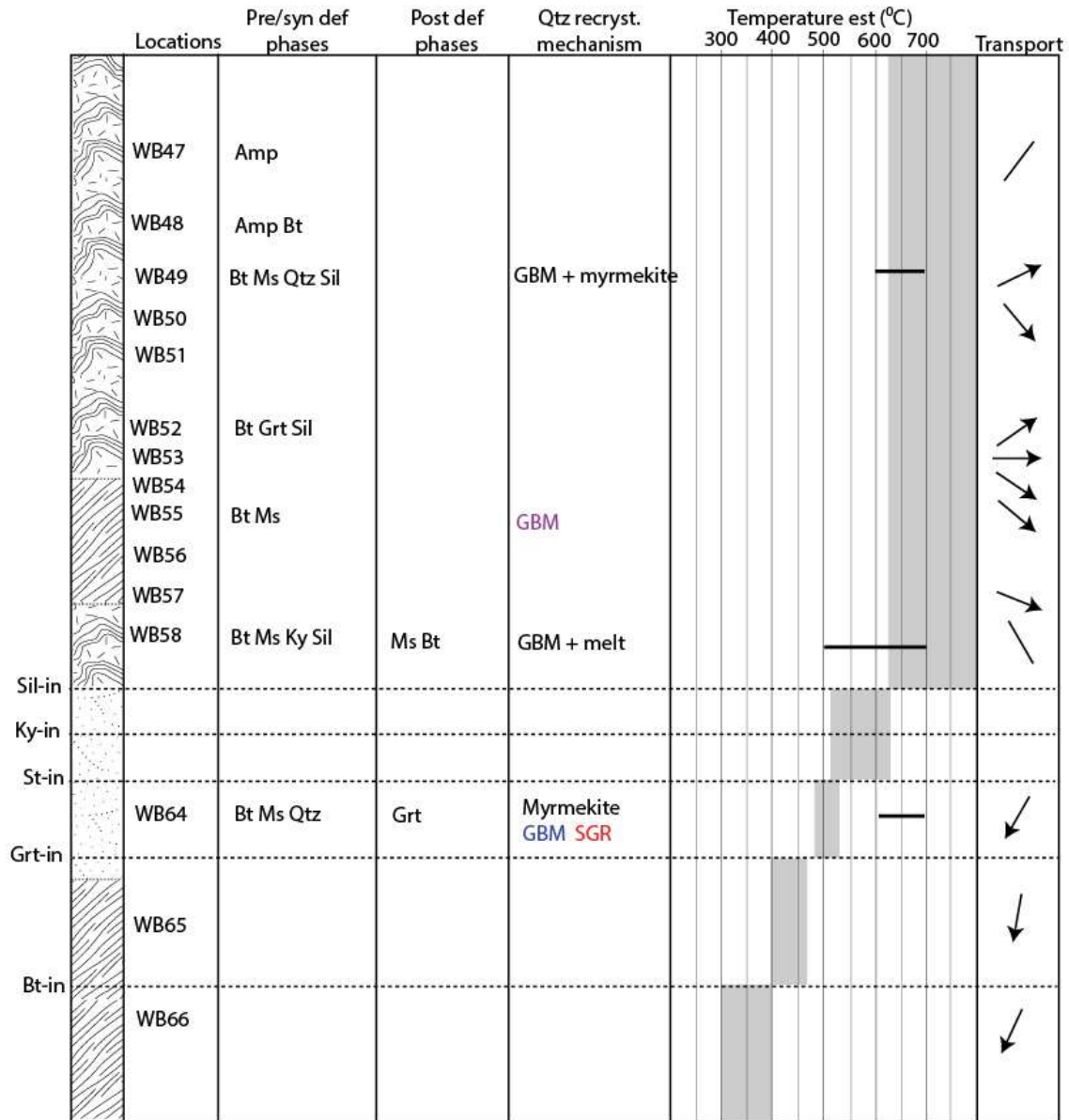


Figure S8. Lithologies, samples and temperature estimates for the Lava to Gorubatang road, SE quadrant of the Tista Dome.

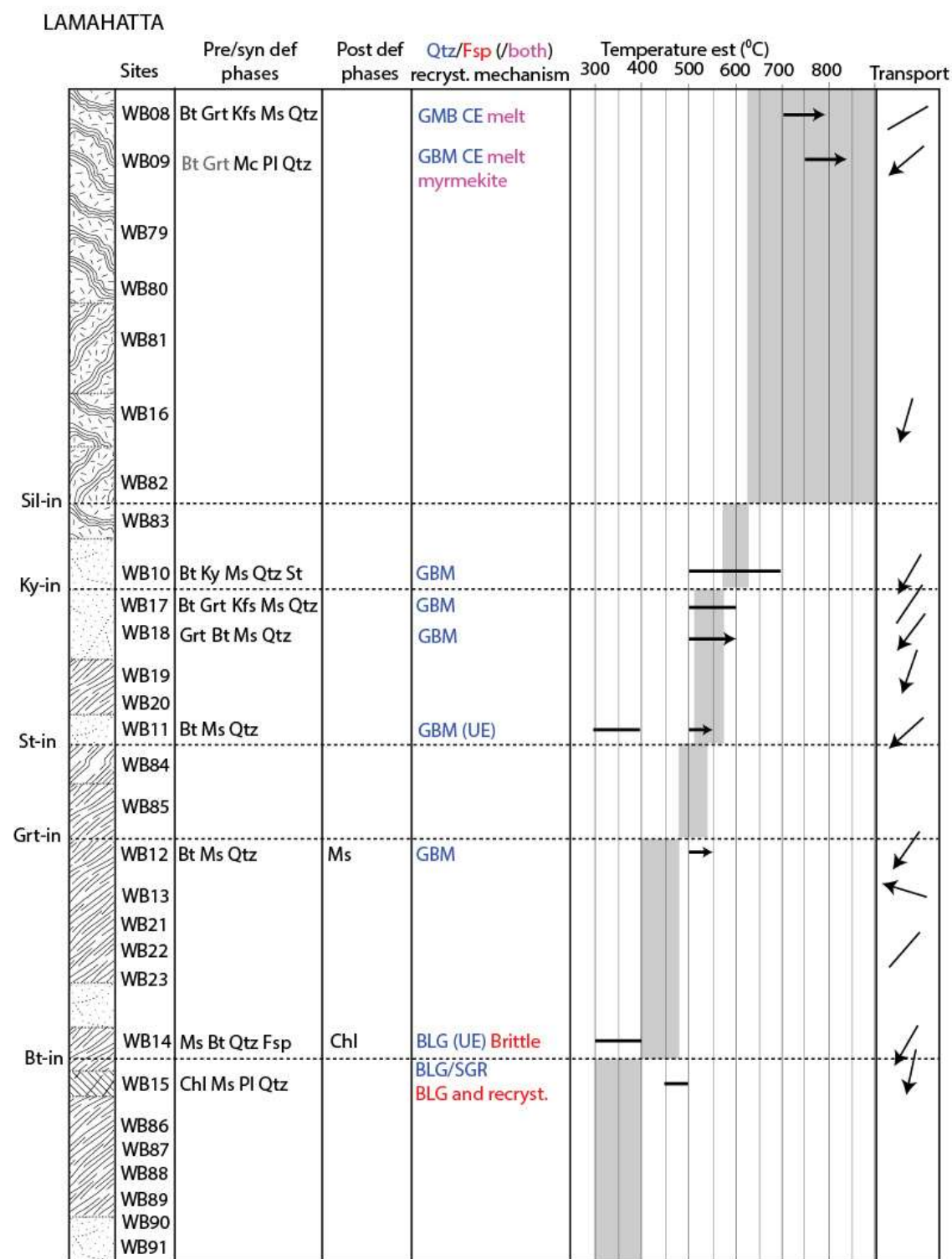


Figure S9. Lithologies, samples and temperature estimates for the Lamahatta area, SW quadrant of the Tista Dome.

KURSEONG

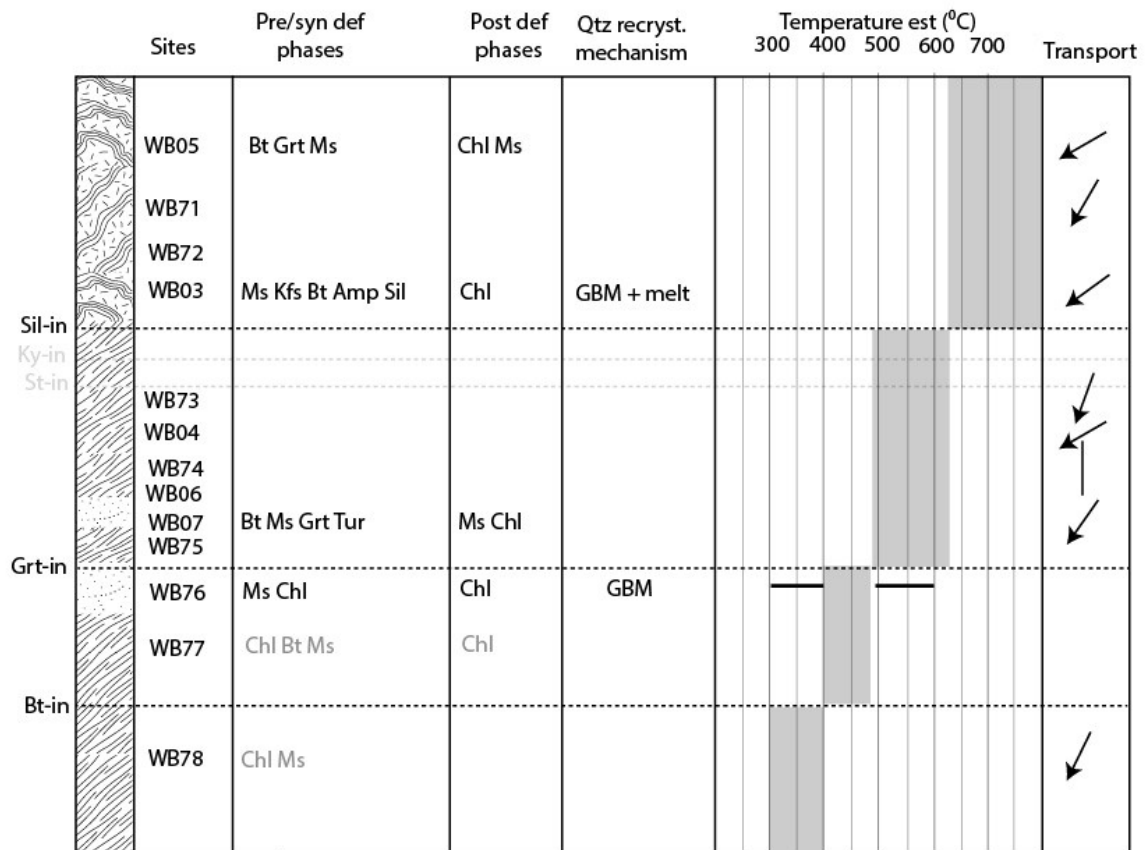


Figure S10. Lithologies, samples and temperature estimates for the Kurseong area, SW quadrant of the Tista Dome.