

Supplementary figures

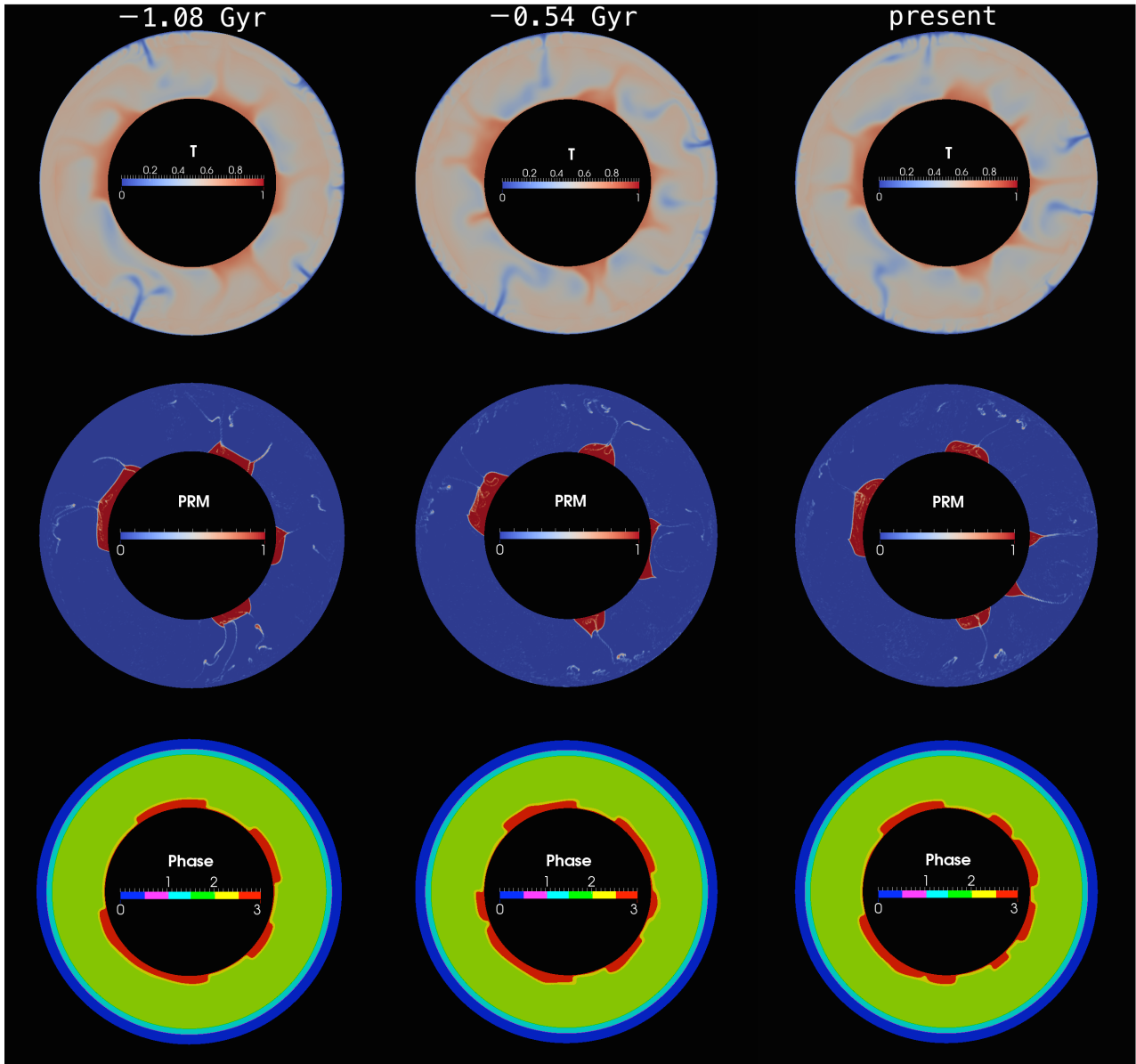


Figure S1. Time evolution of the case with $T_{\text{CMB}}=3350$ K in Figure 1. From left to right: -1.08 Gyr, -0.54 Gyr, present. From top to bottom: temperature, composition, and phase fields.

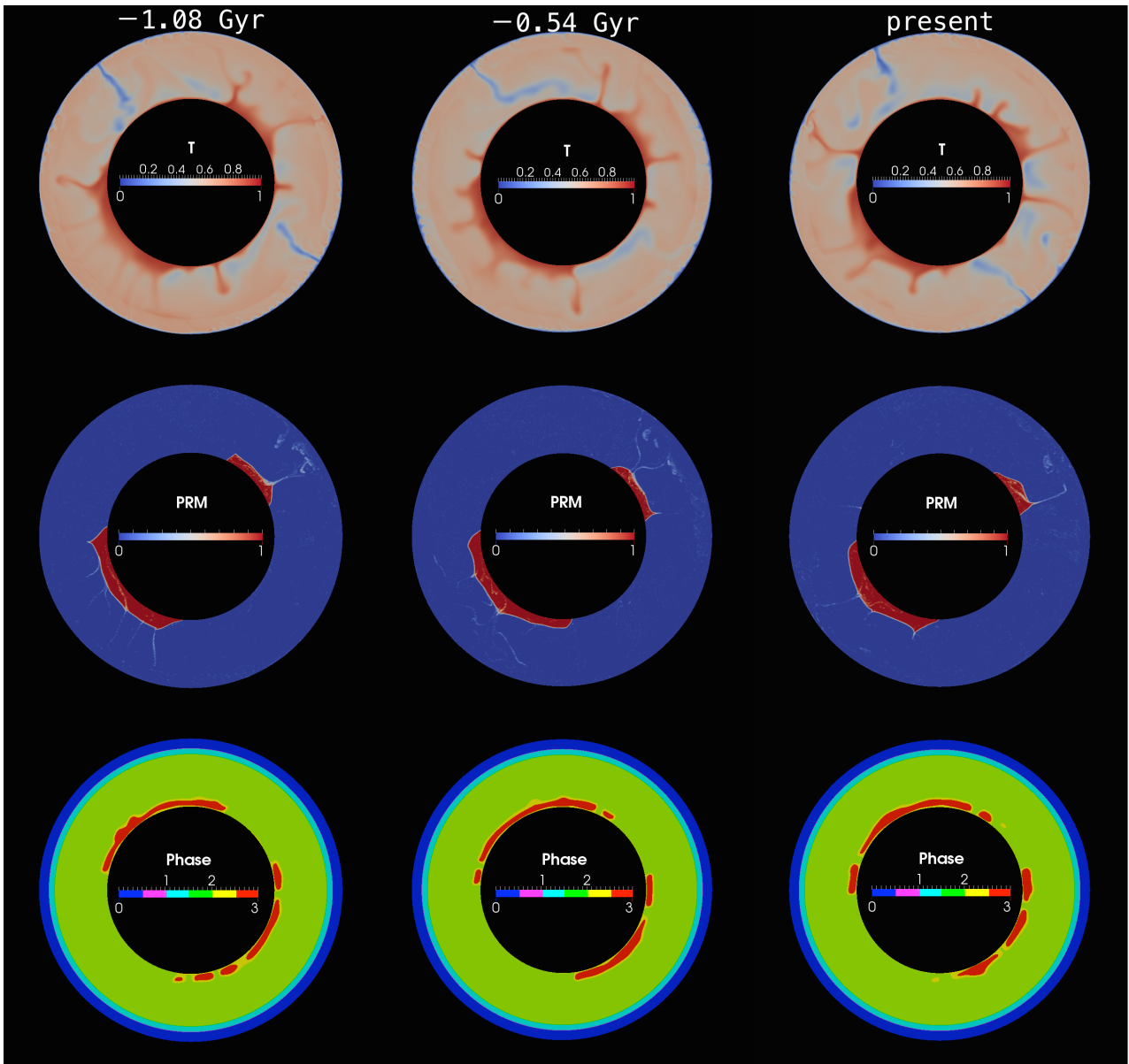


Figure S2. Time evolution of the case with $T_{\text{CMB}}=3750$ K in Figure 1. From left to right: -1.08 Gyr, -0.54 Gyr, present. From top to bottom: temperature, composition, and phase fields.

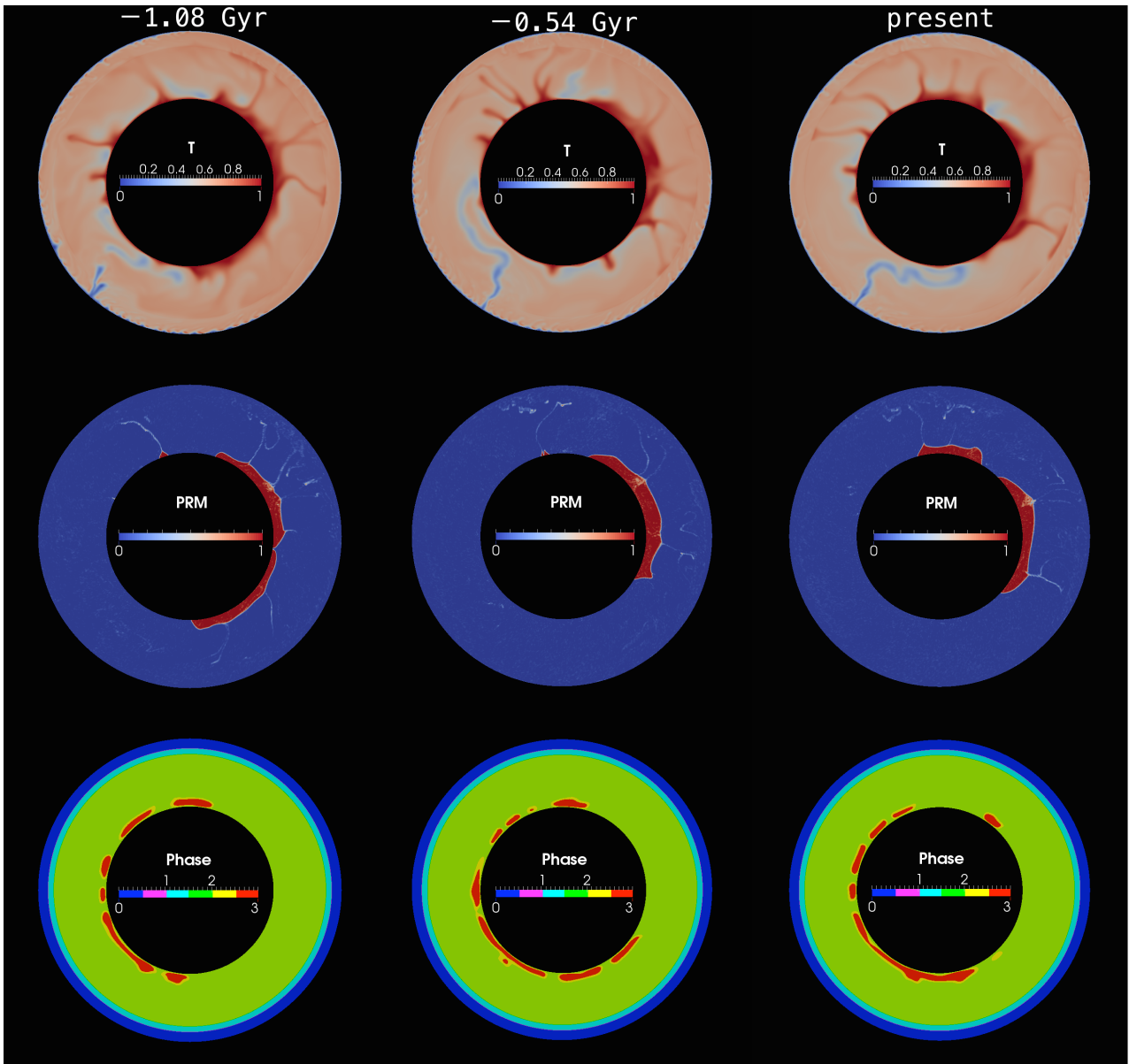


Figure S3. Time evolution of the case with $T_{\text{CMB}}=4200$ K in Figure 1. From left to right: -1.08 Gyr, -0.54 Gyr, present. From top to bottom: temperature, composition, and phase fields.