

## **Wildfire history of the boreal forest of southwestern Yakutia (Siberia) over the last two millennia documented by a lake-sedimentary charcoal record**

### **Supplement**

Overview of the different charcoal size classes (S1–S3) and morphotype classes (S4–S6) in both the classic and robust analysis approach, separated by vertical dashed lines representing the different phases of the fire regime.

For each figure: (a) Classic CHAR peak component (dark grey bars = signal, light grey bars = noise, dashed horizontal line = threshold). (b) SNI of the classic CHAR peak component after Kelly et al. (2011) (red horizontal line = SNI cutoff value of 3). (c) Classic CHAR sum (black line = interpolated CHAR, blue line = LOESS representing the CHAR background component, red vertical lines = fire episodes with SNI >3, grey vertical lines = fire episodes with SNI <3). (d) Robust CHAR background component. (e) Robust CHAR peak component (red areas = above-average values). (f) Robust CHAR sum. For (d)–(f): black line = median, grey area = interquartile range.

**S1: Size class 150–300  $\mu\text{m}$**

**S2: Size class 300–500  $\mu\text{m}$**

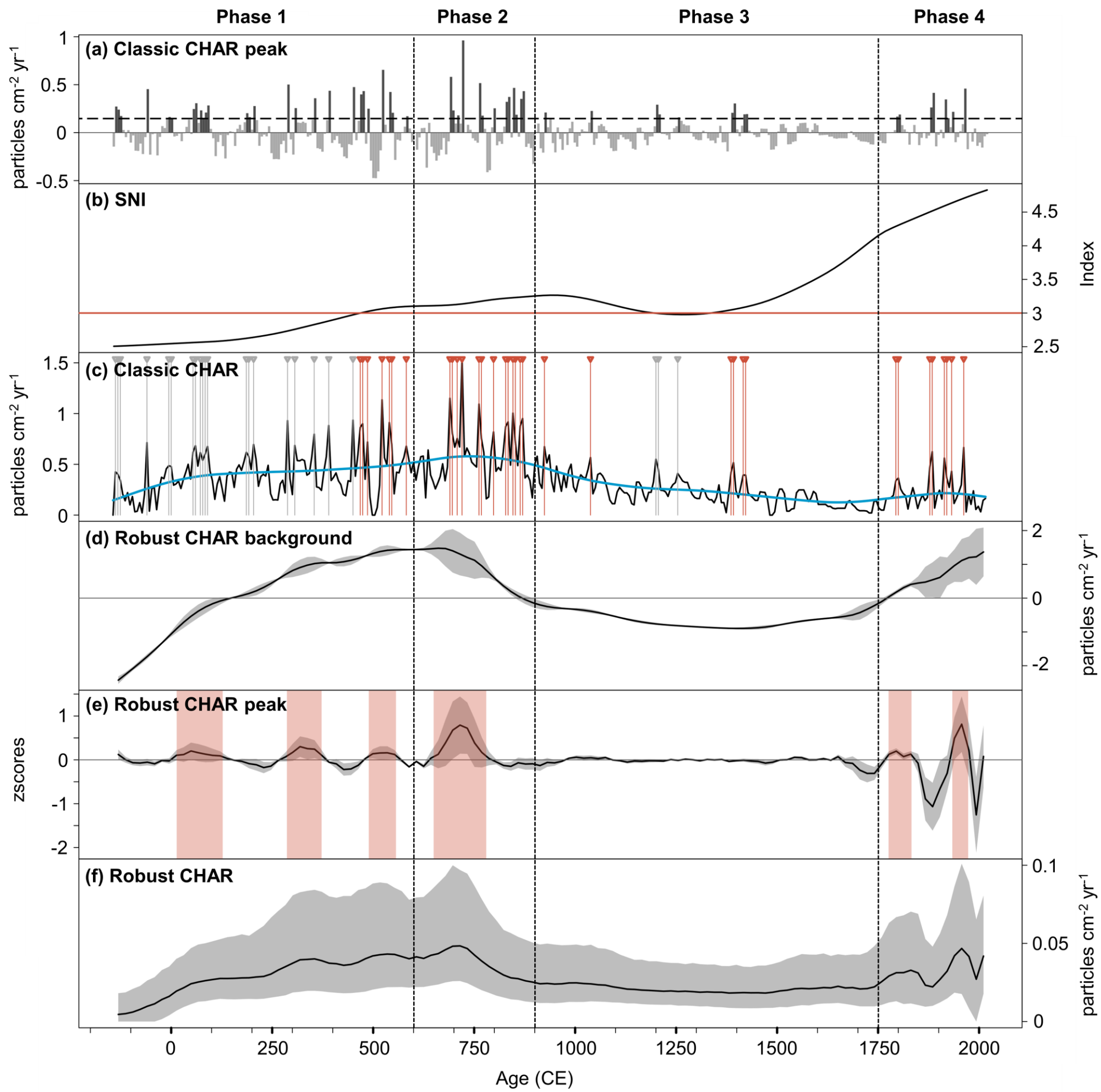
**S3: Size class >500  $\mu\text{m}$**

**S4: Angular morphotypes (S, B, C)**

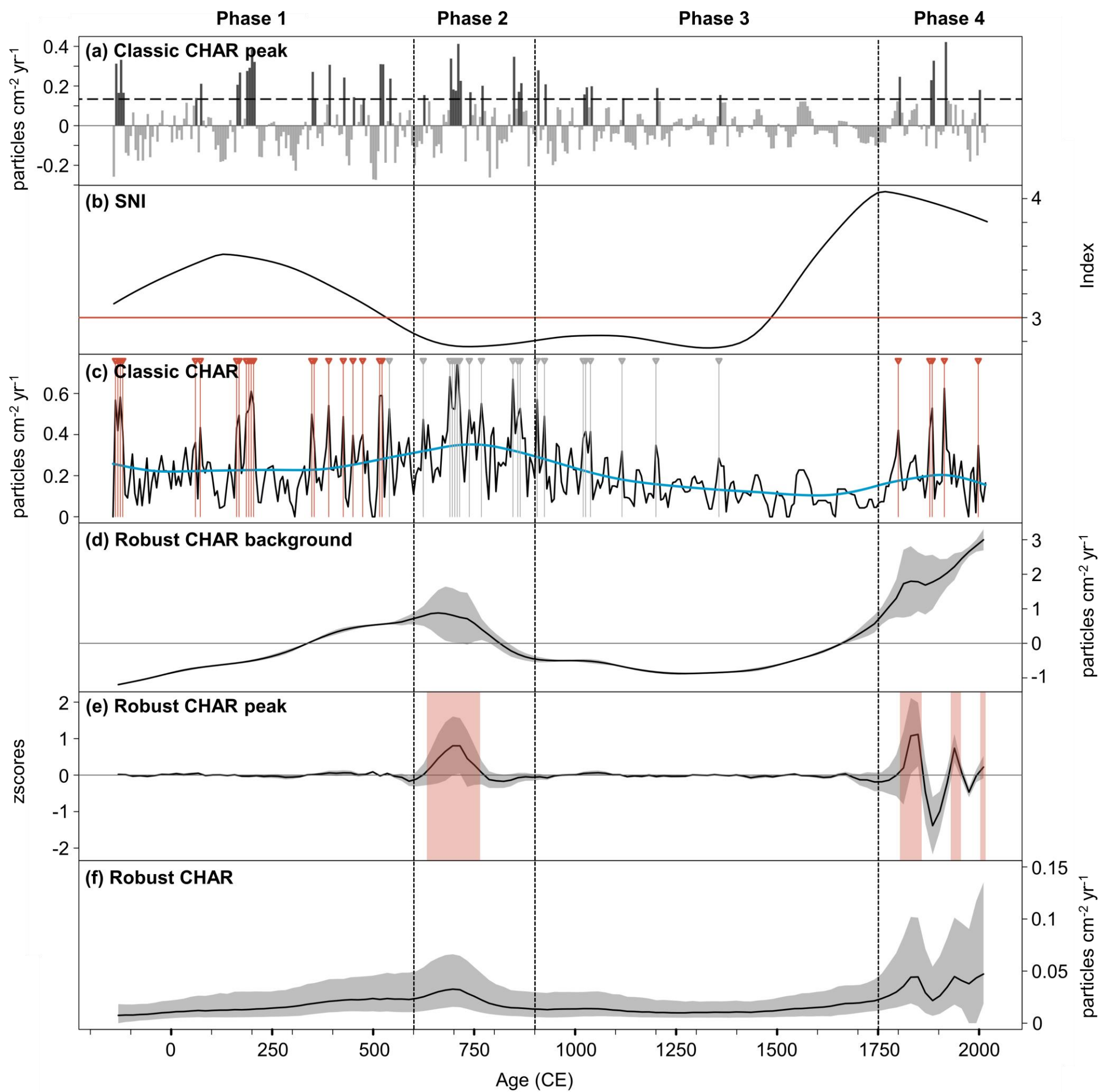
**S5: Elongated morphotypes (F, D, E)**

**S6: Irregular morphotypes (M, P, X)**

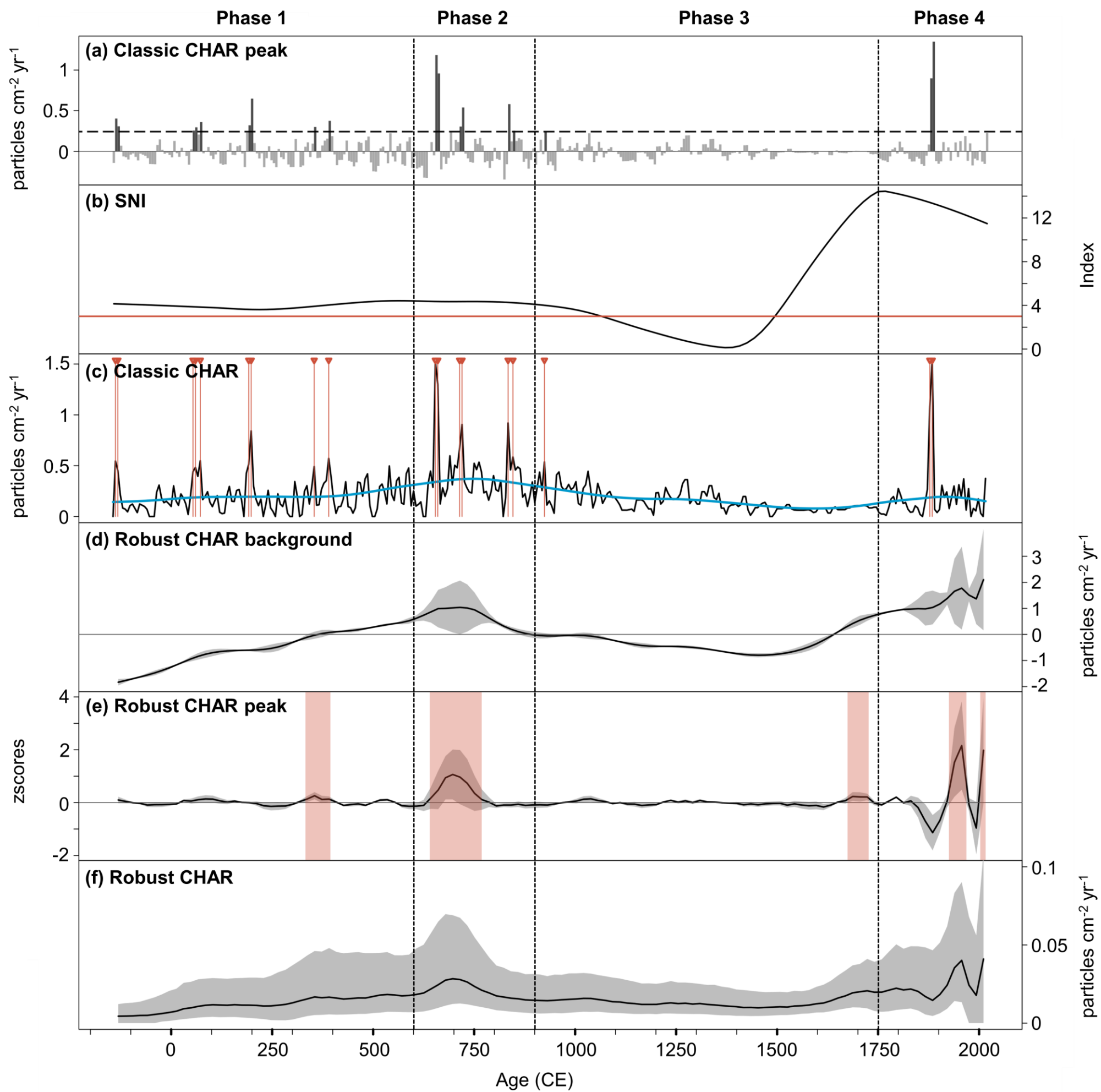
**S1: Size class 150–300  $\mu\text{m}$**



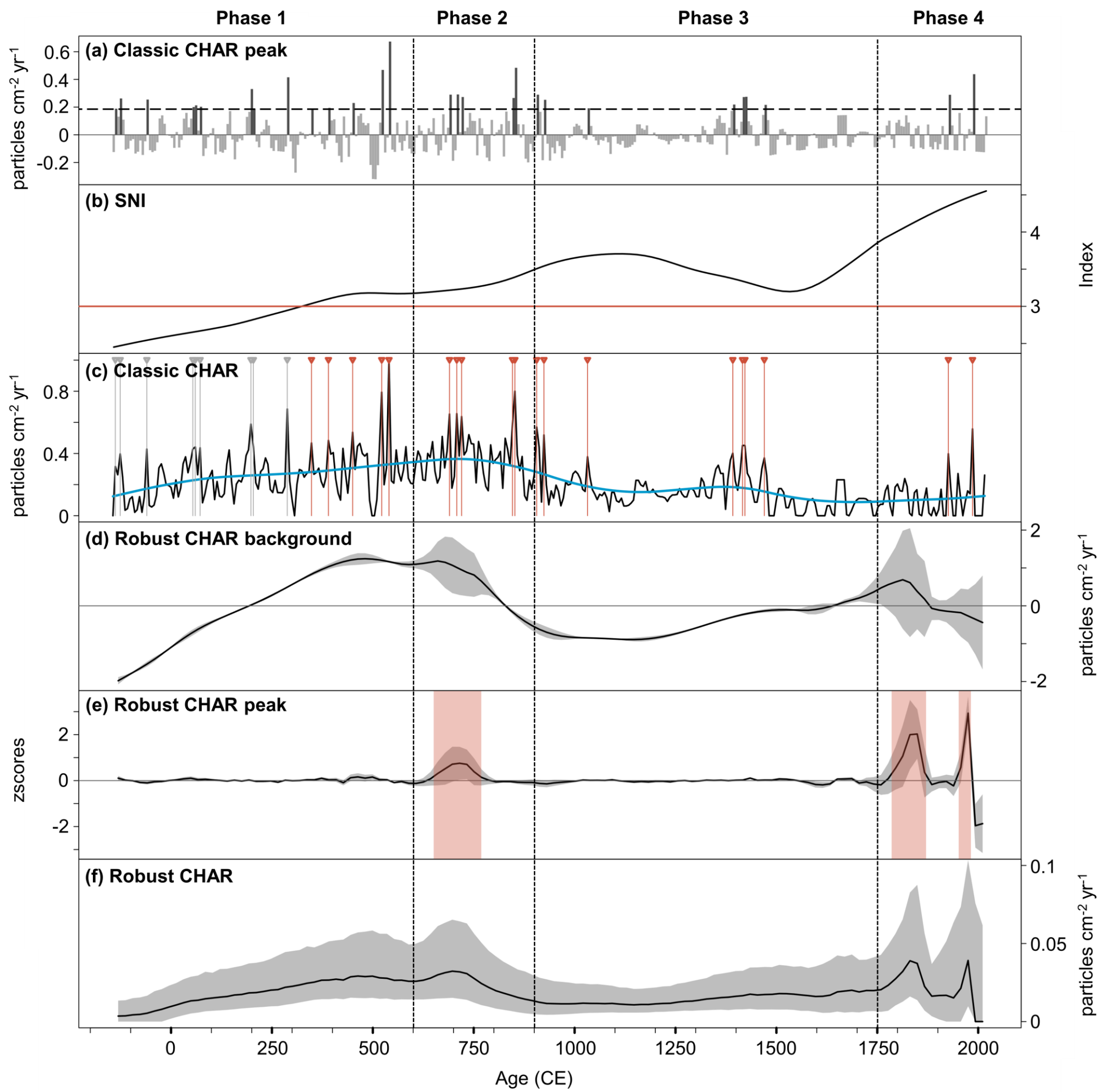
**S2: Size class 300–500  $\mu\text{m}$**



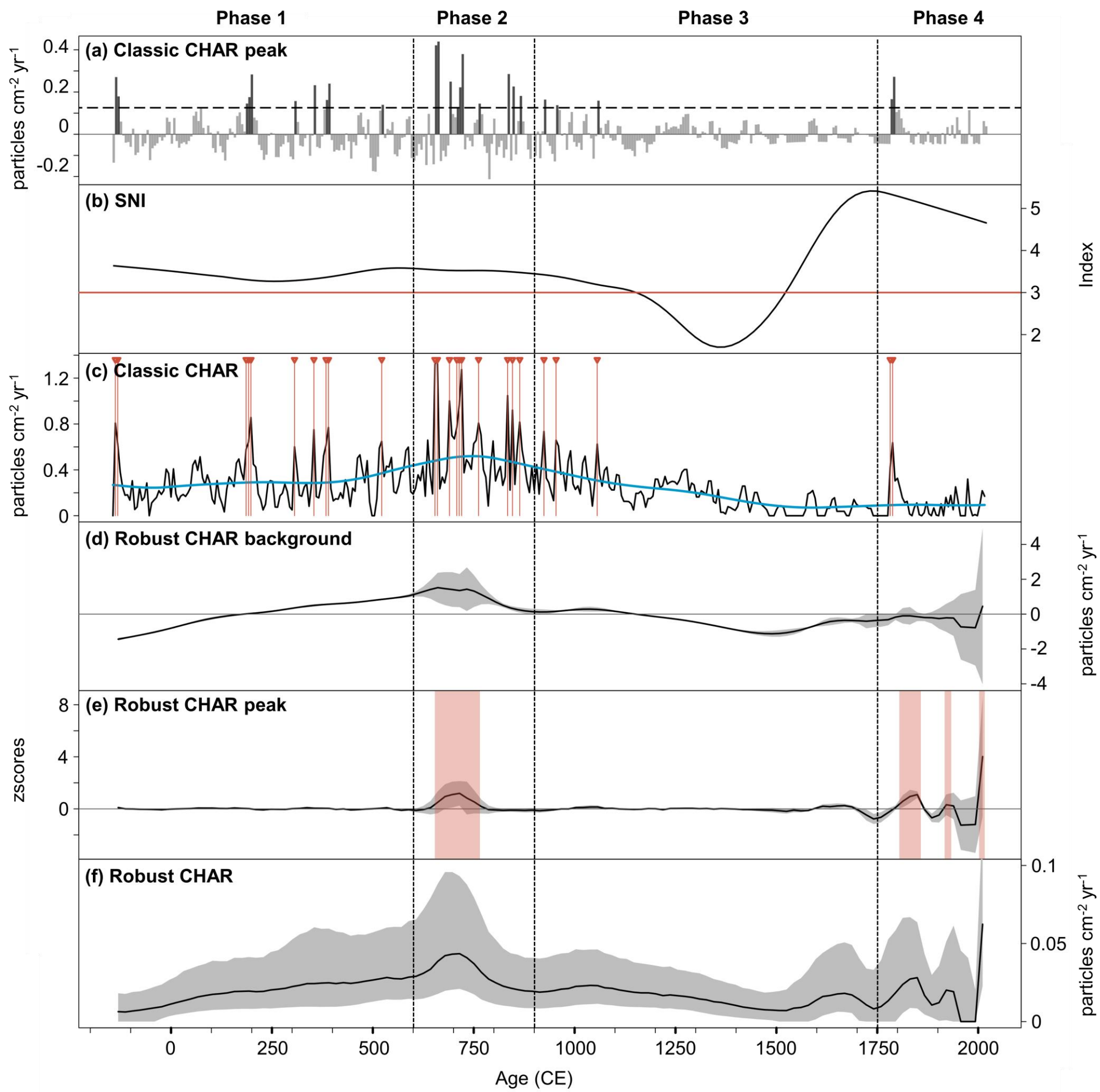
**S3: Size class >500  $\mu\text{m}$**



### S4: Angular morphotypes



**S5: Elongated morphotypes**



# S6: Irregular morphotypes

