

Figure 1

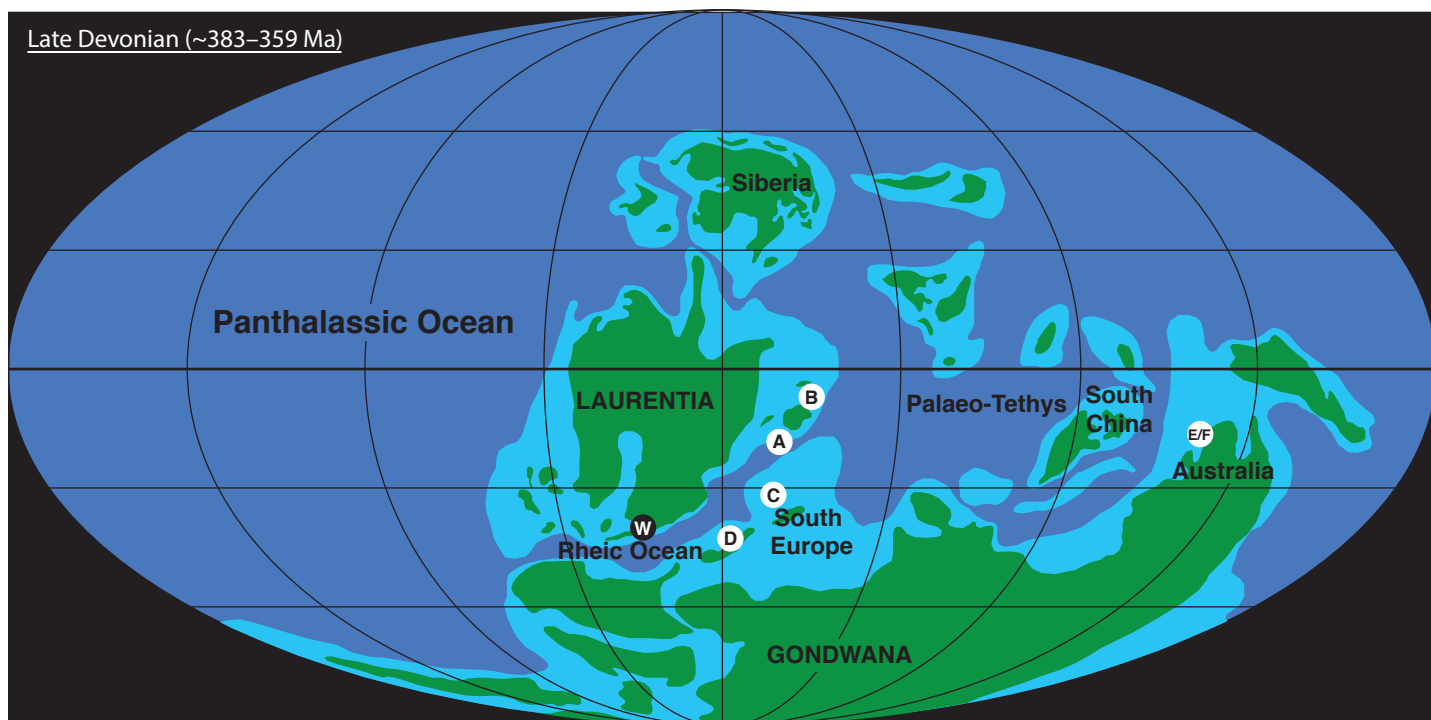
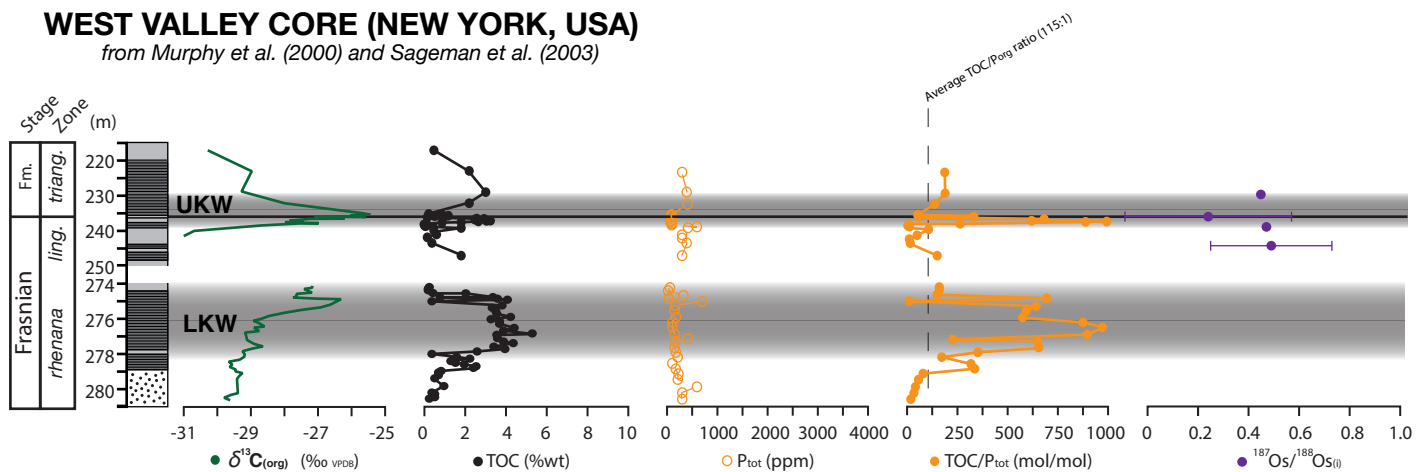


Figure 2

WEST VALLEY CORE (NEW YORK, USA)

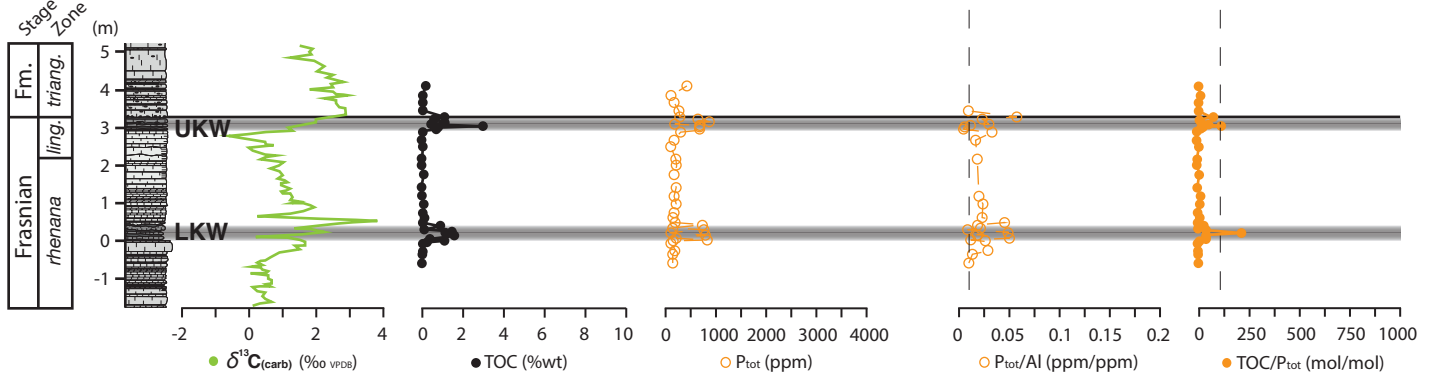
from Murphy et al. (2000) and Sageman et al. (2003)



LITHOLOGY: Sandstones Mudstones Black shales

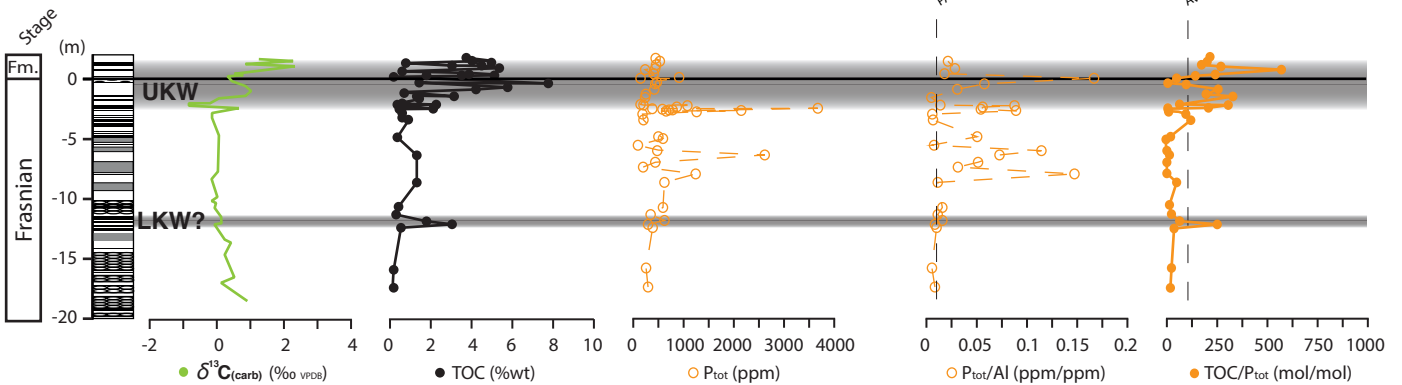
Figure 3

A: STEINBRUCH SCHMIDT (GERMANY)



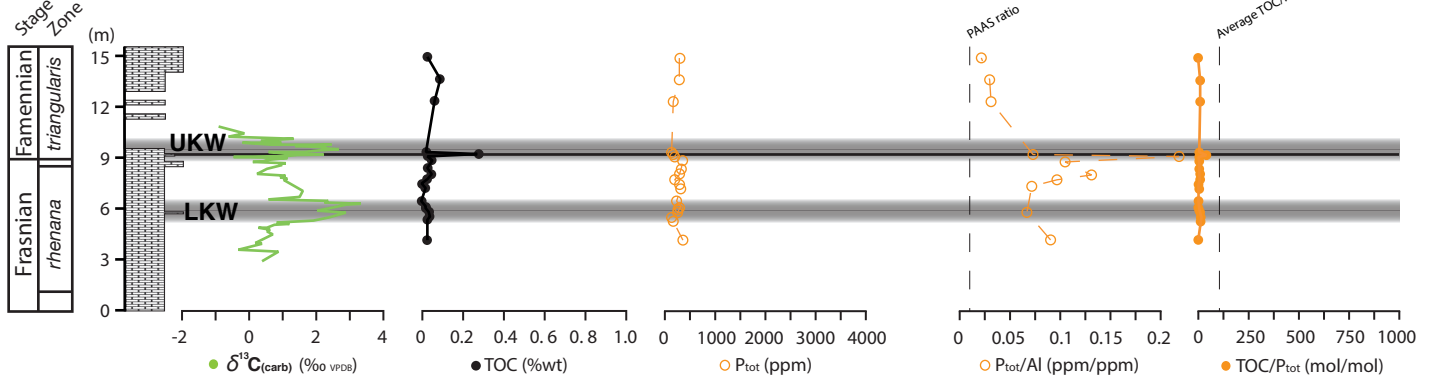
LITHOLOGY: Grey pelagic limestones, Black, organic-rich, limestones, Black, organic-rich, shales, Limestone nodules

B: KOWALA (POLAND)



LITHOLOGY: Micritic limestones, Finely interbedded limestones and organic-lean shales, Dark, laminated, organic-rich shales, Nodular limestones interbedded with very thin shales

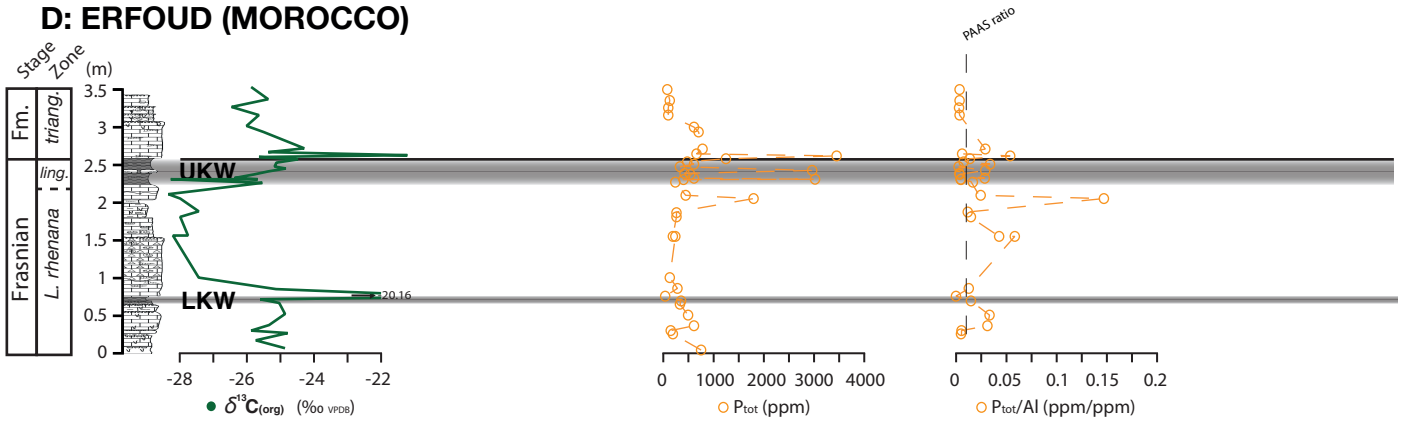
C: COUMIAC (FRANCE)



LITHOLOGY: Pelagic limestones

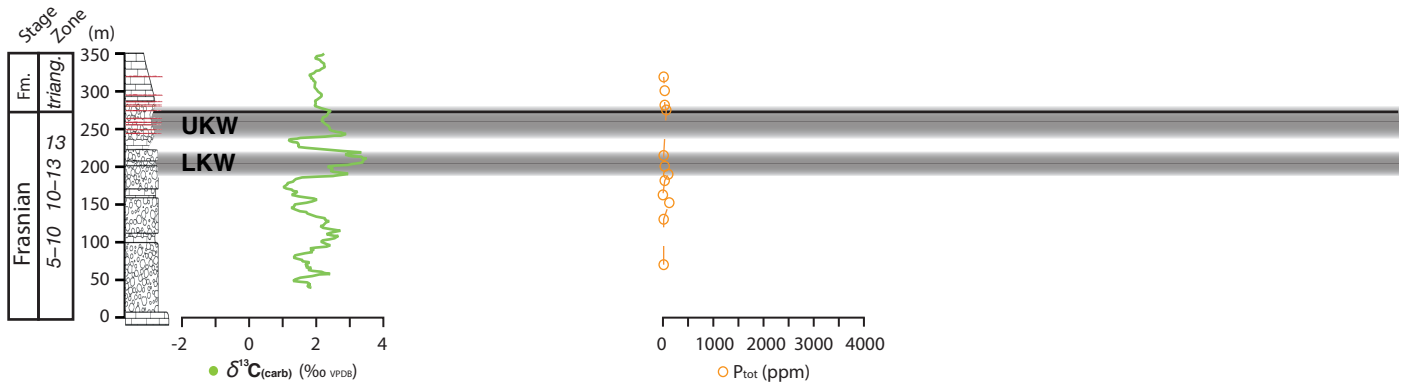
Figure 3

D: ERFOUD (MOROCCO)



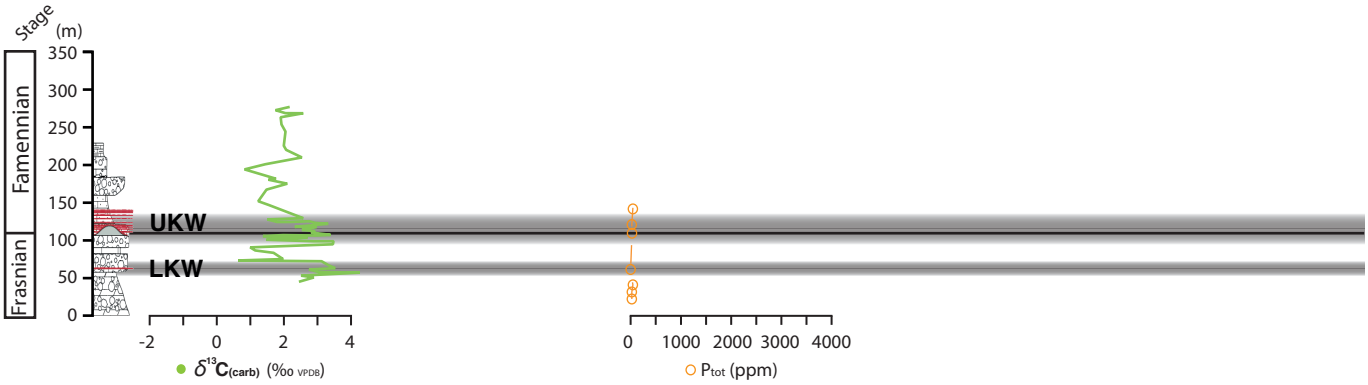
LITHOLOGY: Shales Marls Marly limestones Limestones Breccial limestones Bioturbations
 Orthocones Crinoids Goniatites Brachiopods

E: SOUTH OSCAR RANGE (AUSTRALIA)



LITHOLOGY: Limestone-fine grainstones Limestone grainflows Slope mega breccias Deep-water stromatolites

F: DINGO GAP (AUSTRALIA)

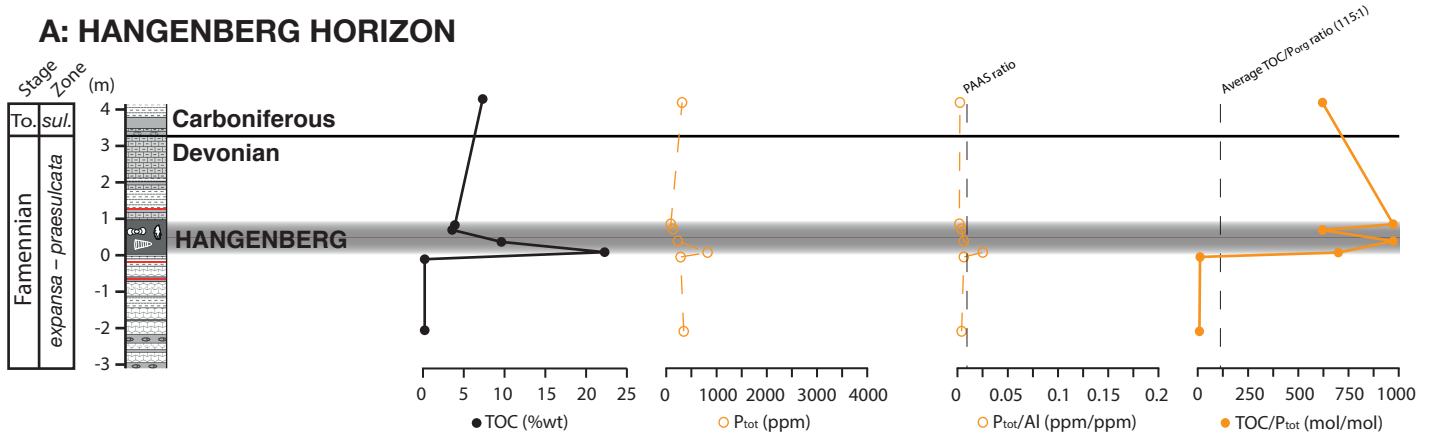


LITHOLOGY: Limestone-fine grainstones Limestone grainflows Slope mega breccias Deep-water stromatolites
 Silty limestones Sandy limestones Grainflows with interbedded dolomites Mounds

Figure 4

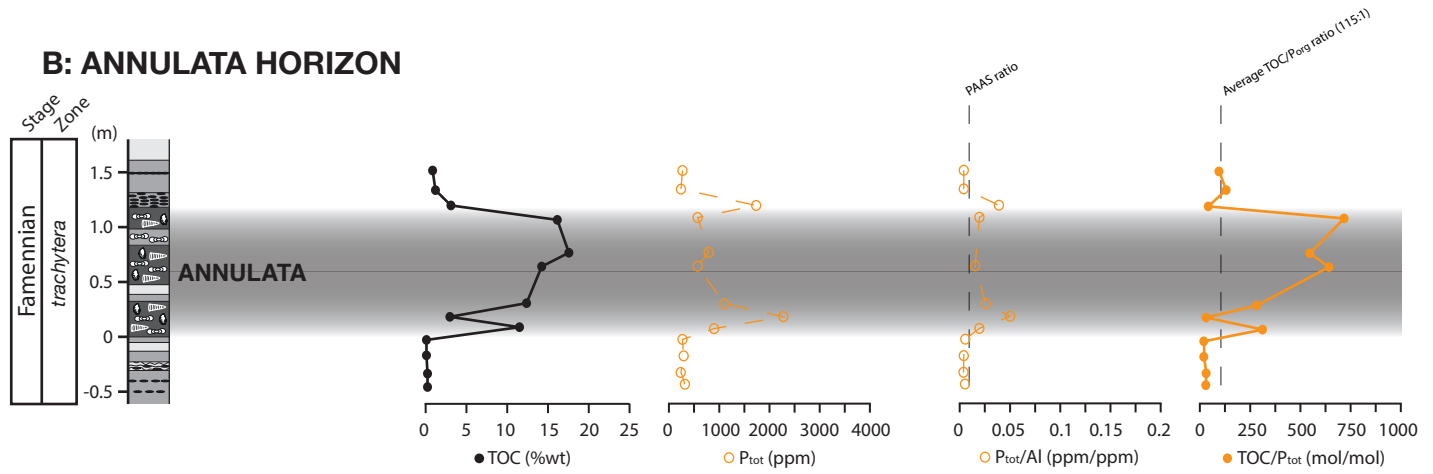
KOWALA QUARRY RECORDS

A: HANGENBERG HORIZON



LITHOLOGY: Tuffaceous claystones Marls Marly limestones Fossiliferous organic-rich shales Wavy/nodular limestones Dated ash bed

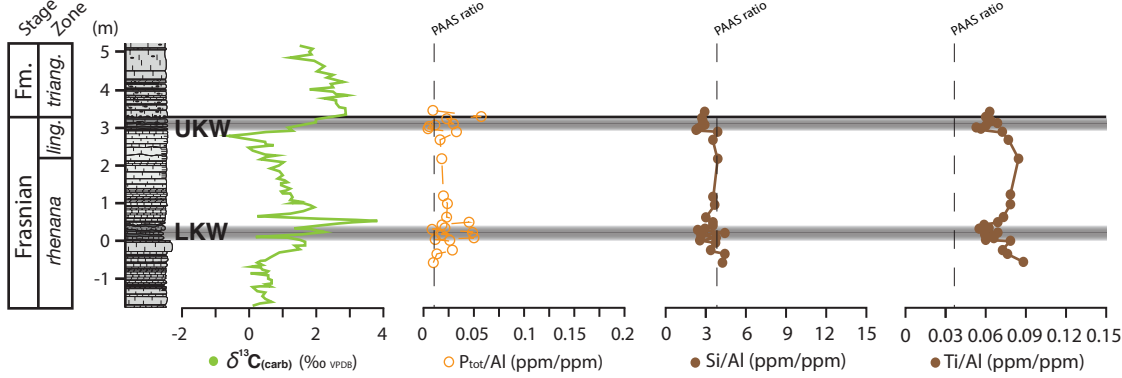
B: ANNULATA HORIZON



LITHOLOGY: Micritic limestones Marls Fossiliferous organic-rich shales Calcareous nodules

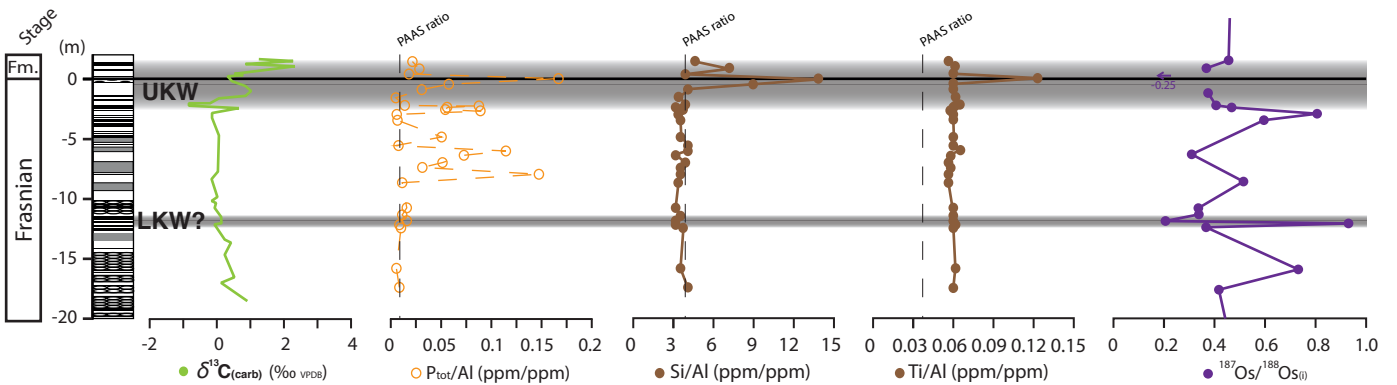
Figure 5

A: STEINBRUCH SCHMIDT (GERMANY)



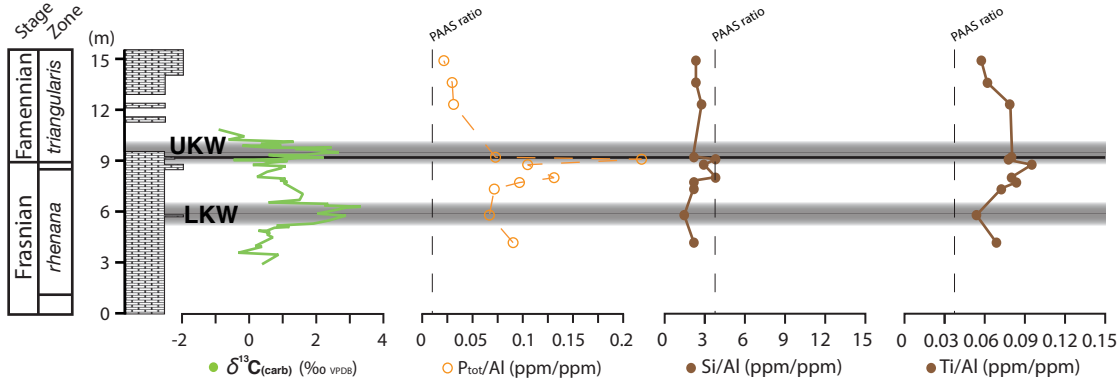
LITHOLOGY: Grey pelagic limestones, Black, organic-rich, limestones, Black, organic-rich, shales, Limestone nodules

B: KOWALA (POLAND)



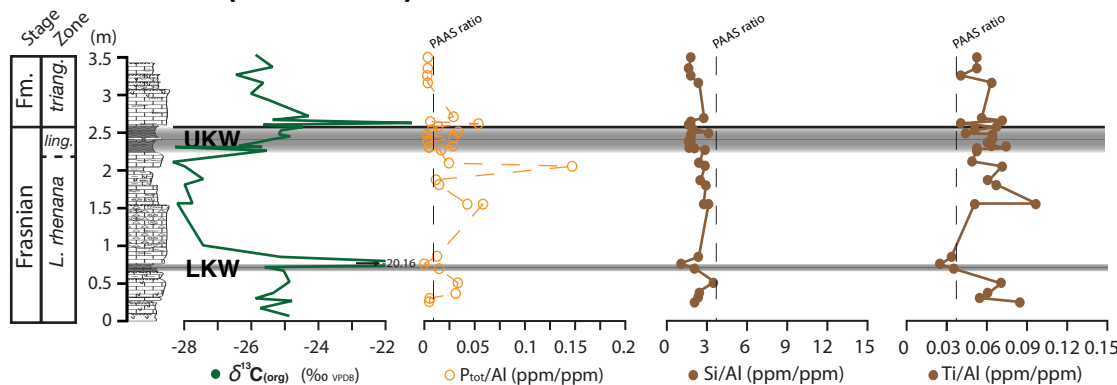
LITHOLOGY: Micritic limestones, Finely interbedded limestones and organic-lean shales, Dark, laminated, organic-rich shales, Nodular limestones interbedded with very thin shales

C: COUMIAC (FRANCE)



LITHOLOGY: Pelagic limestones

D: ERFOUD (MOROCCO)

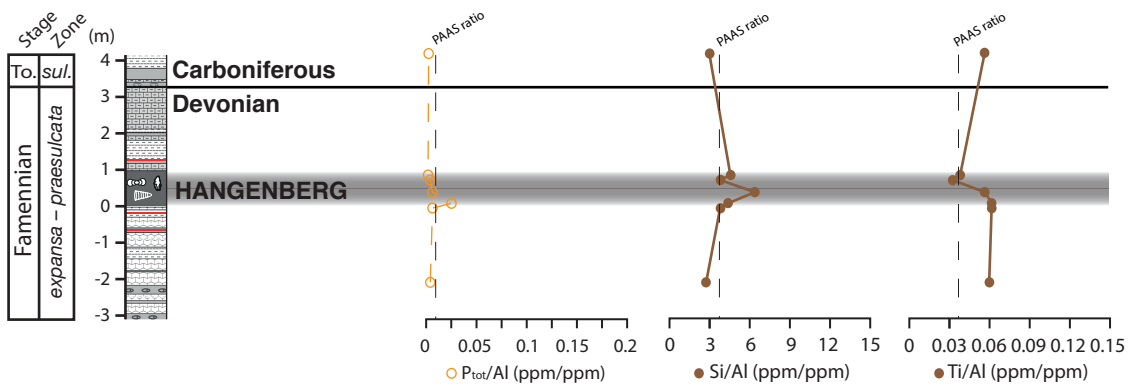


LITHOLOGY: Shales, Marls, Marly limestones, Limestones, Breccial limestones, Bioturbations, Orthocones, Crinoids, Goniatites, Brachiopods

Figure 6

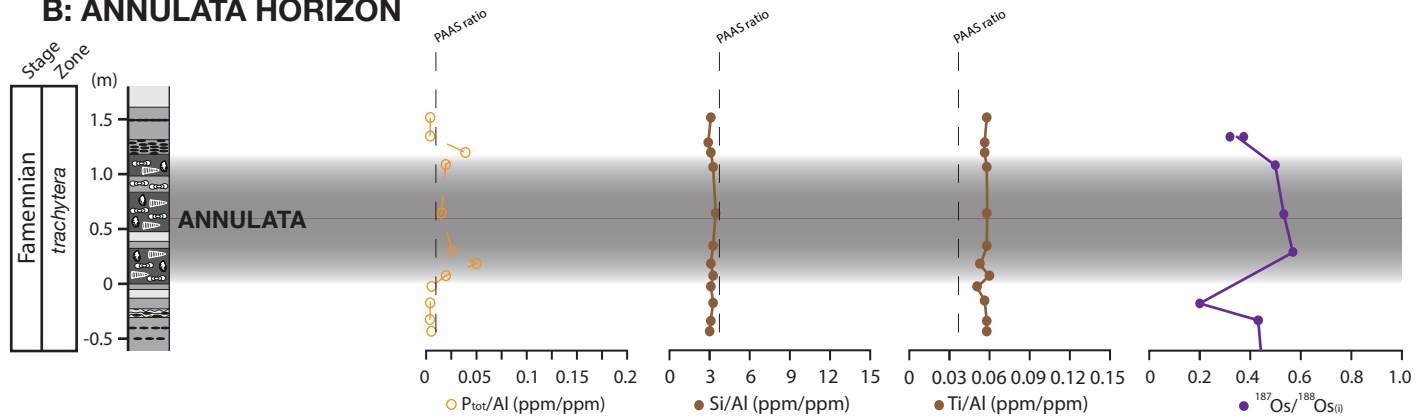
KOWALA QUARRY RECORDS

A: HANGENBERG HORIZON



LITHOLOGY: Tuffaceous claystones Marls Marly limestones Fossiliferous organic-rich shales Wavy/nodular limestones Dated ash bed

B: ANNULATA HORIZON



LITHOLOGY: Micritic limestones Marls Fossiliferous organic-rich shales Calcareous nodules