

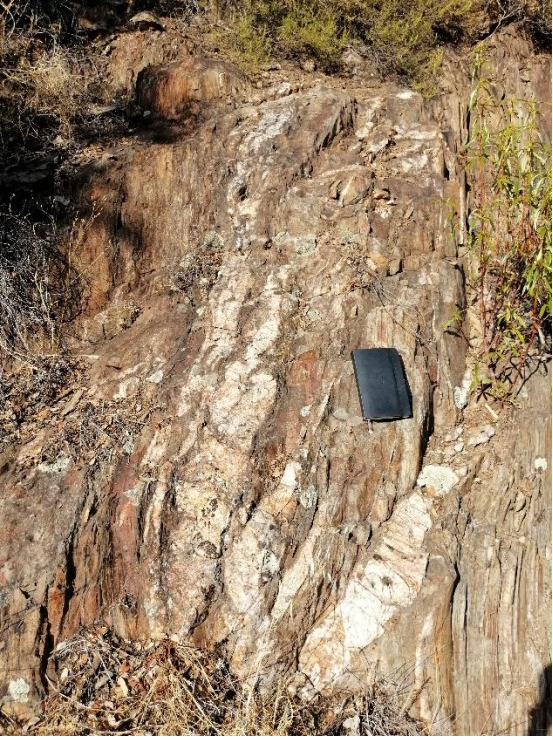


<http://doi.org/10.54499/ERA-MIN/0002/2019>
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What is the relevance of mapping regional shear zones? What constraints do these structures impose to the delimitation of Sn-W and Li-rich systems?

Ícaro Dias da Silva; António Mateus;
Ivo Martins; L. Miguel Gaspar
Michel Cathelineau; Marie-Christine Boiron



Abundant

- **Ductile/semi-brittle shear zones**
 - (Proto-)mylonites preserved
 - Different arrays of subsidiary structures
 - Multi-stage reactivation
 - Recurrent multi-phase quartz-infillings, occasionally bearing sulphides ($py \pm sph \pm apy$)
- **Strike-slip fault zones**
 - Cataclasites, quartz infillings in releasing bends, breccias (at times mineralised; Pb-Ba in Segura), fault-gouges, ...
 - Splays of secondary structures
 - Multi-stage reactivation (always in brittle regime); multiple slickenlines; occasional R-R', ...



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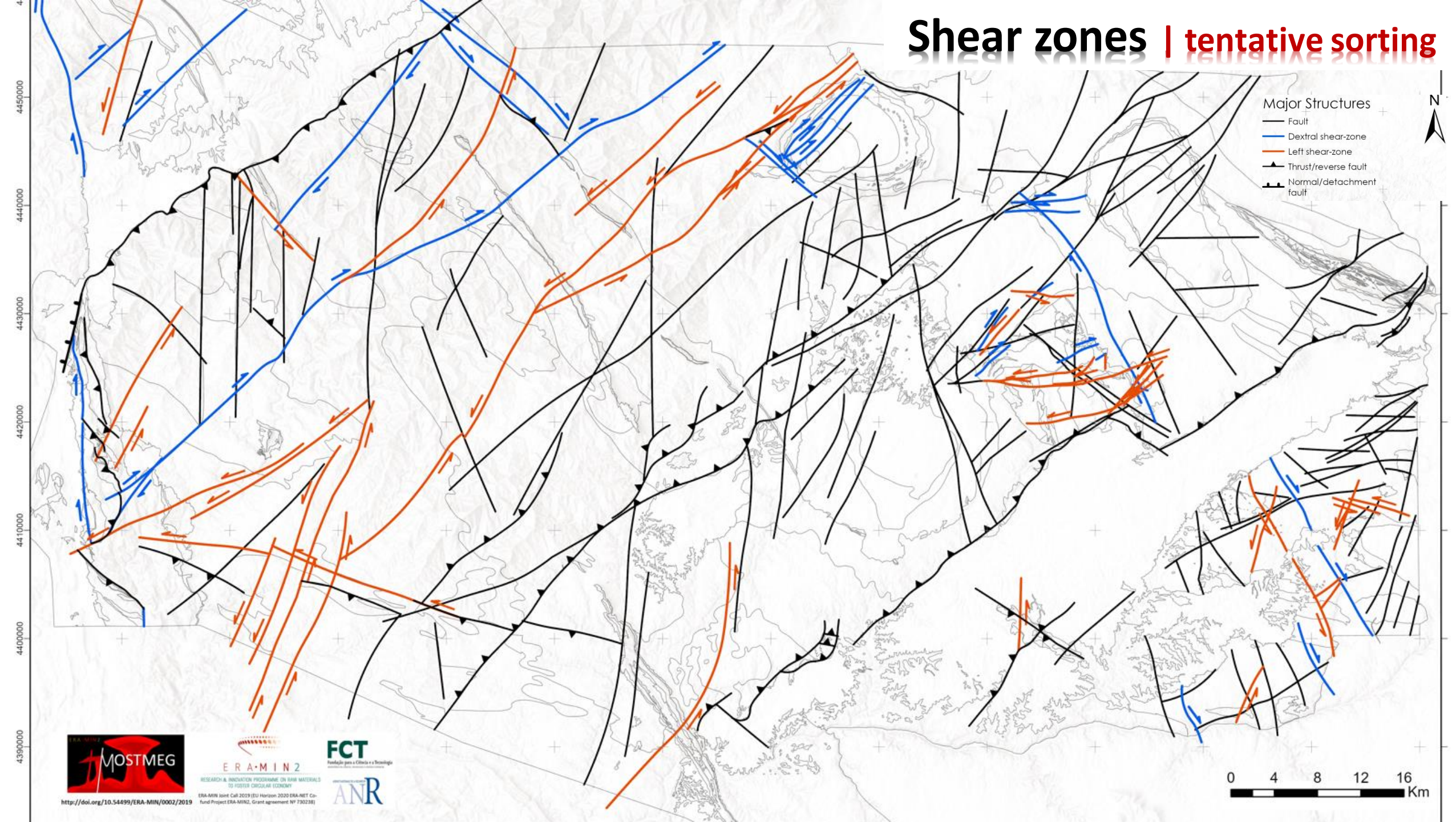
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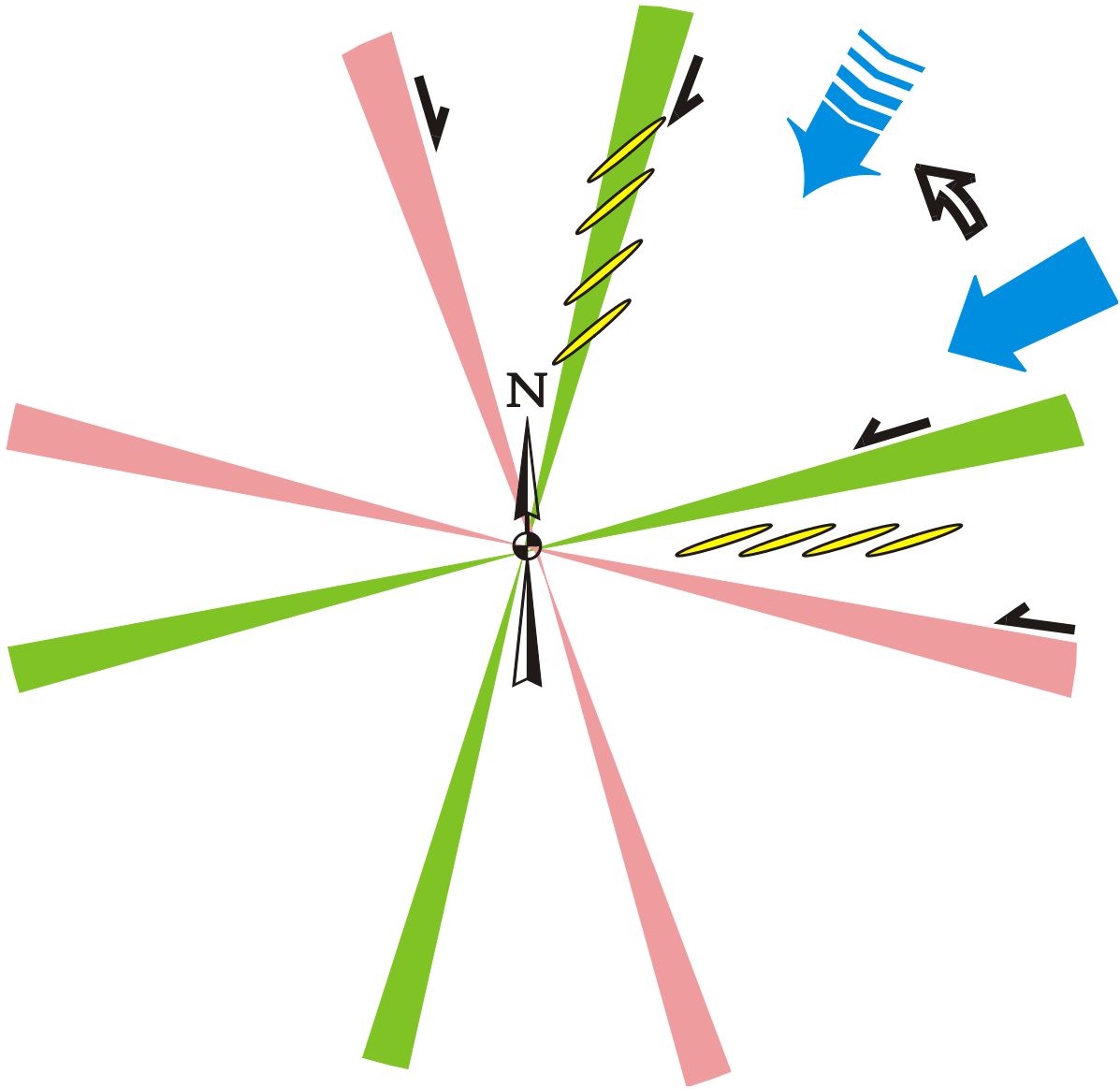




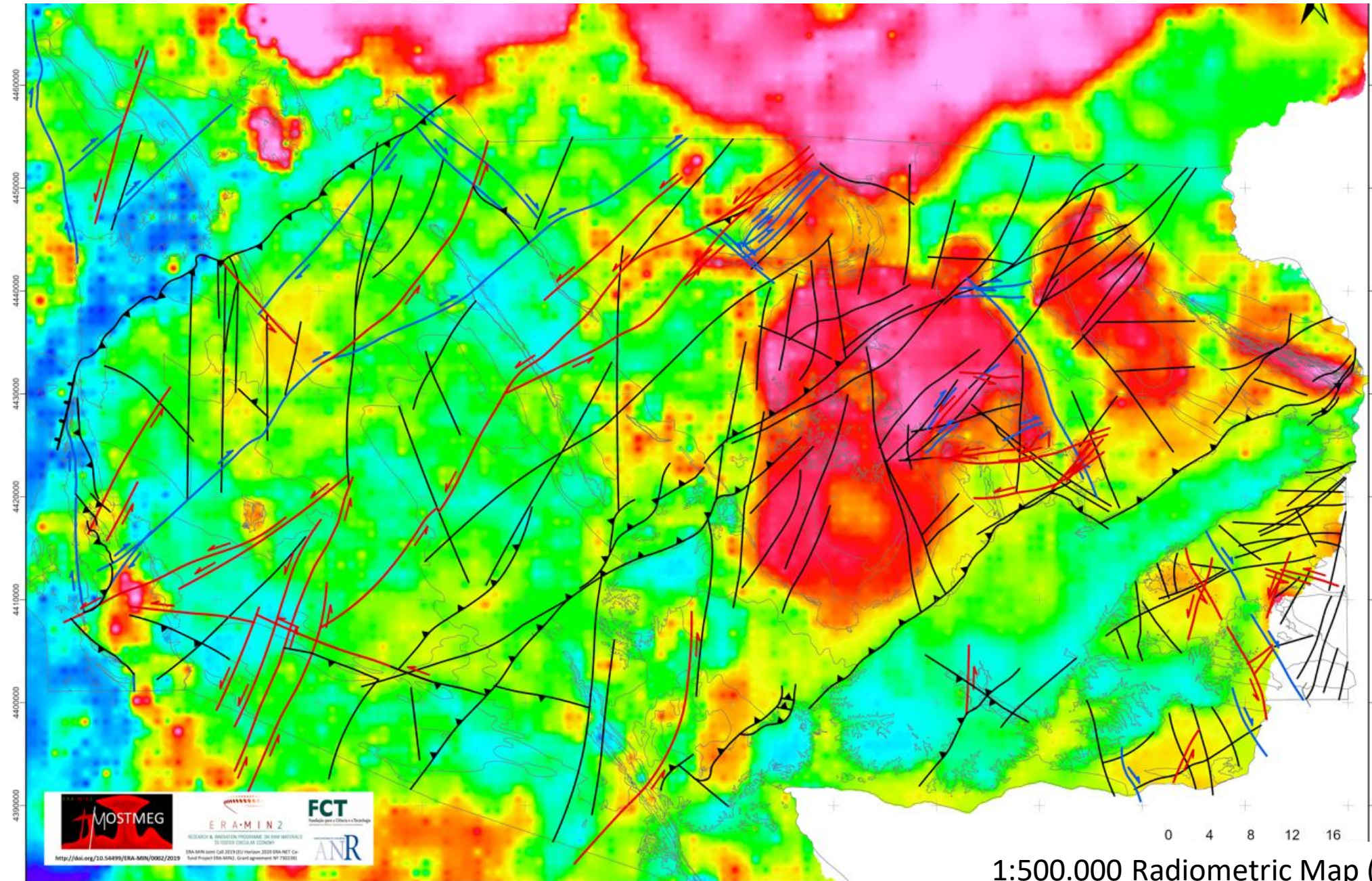


Shear zones | tentative sorting





Shear zones | could they influence the rising/emplacement of orogenic silicate melts?



1:500.000 Radiometric Map (LNEG)

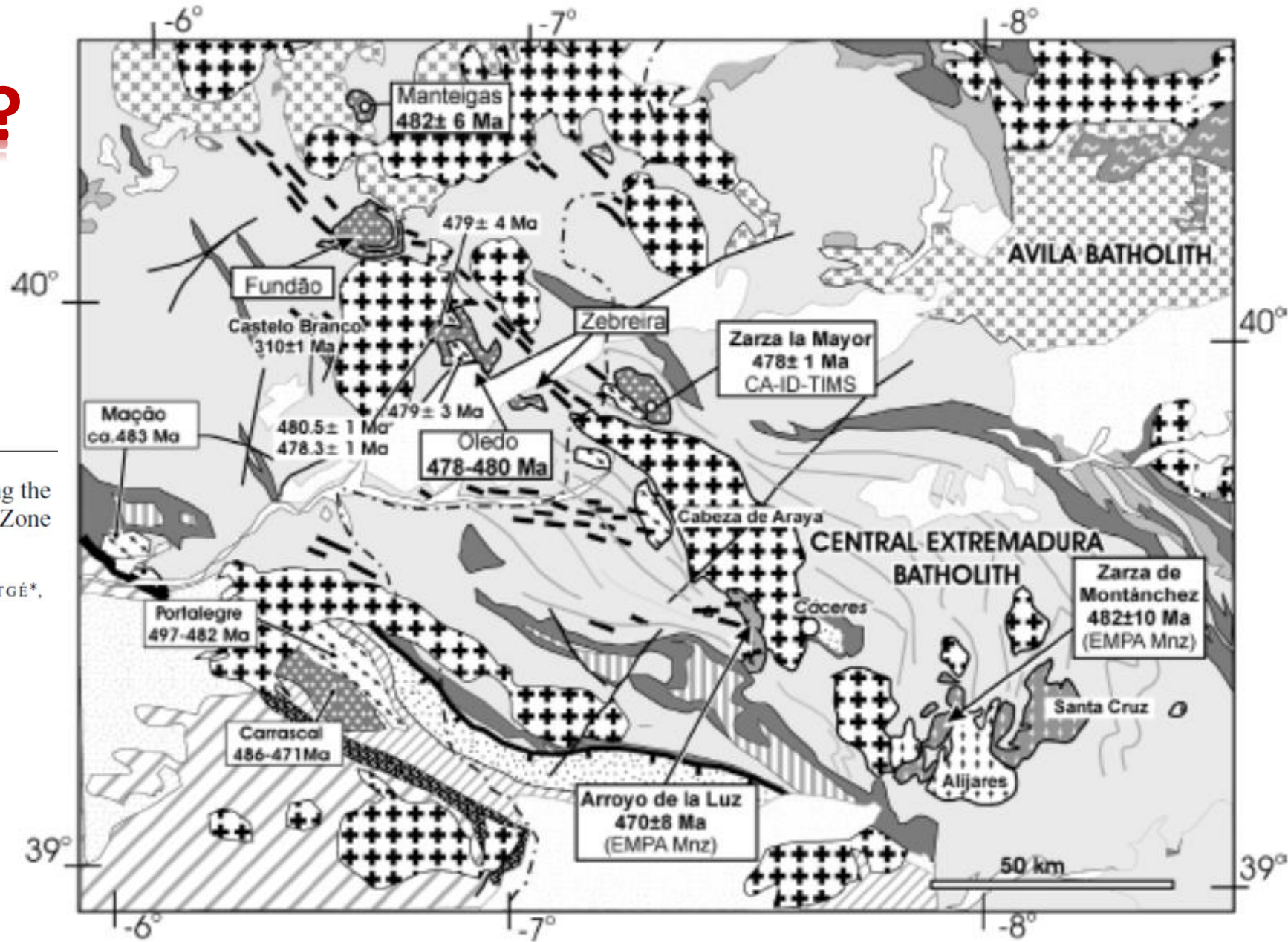
NW-SE direction?

Geol. Mag. 149 (5), 2012, pp. 927–939. © Cambridge University Press 2012
doi:10.1017/S0016756811001129

RAPID COMMUNICATION

An Early Ordovician tonalitic–granodioritic belt along the Schistose-Greywacke Domain of the Central Iberian Zone (Iberian Massif, Variscan Belt)

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A. CUESTA-FERNÁNDEZ*§, G. GALLASTEGUI¶,
M. FERNÁNDEZ-GONZÁLEZ§ & A. GERDES||





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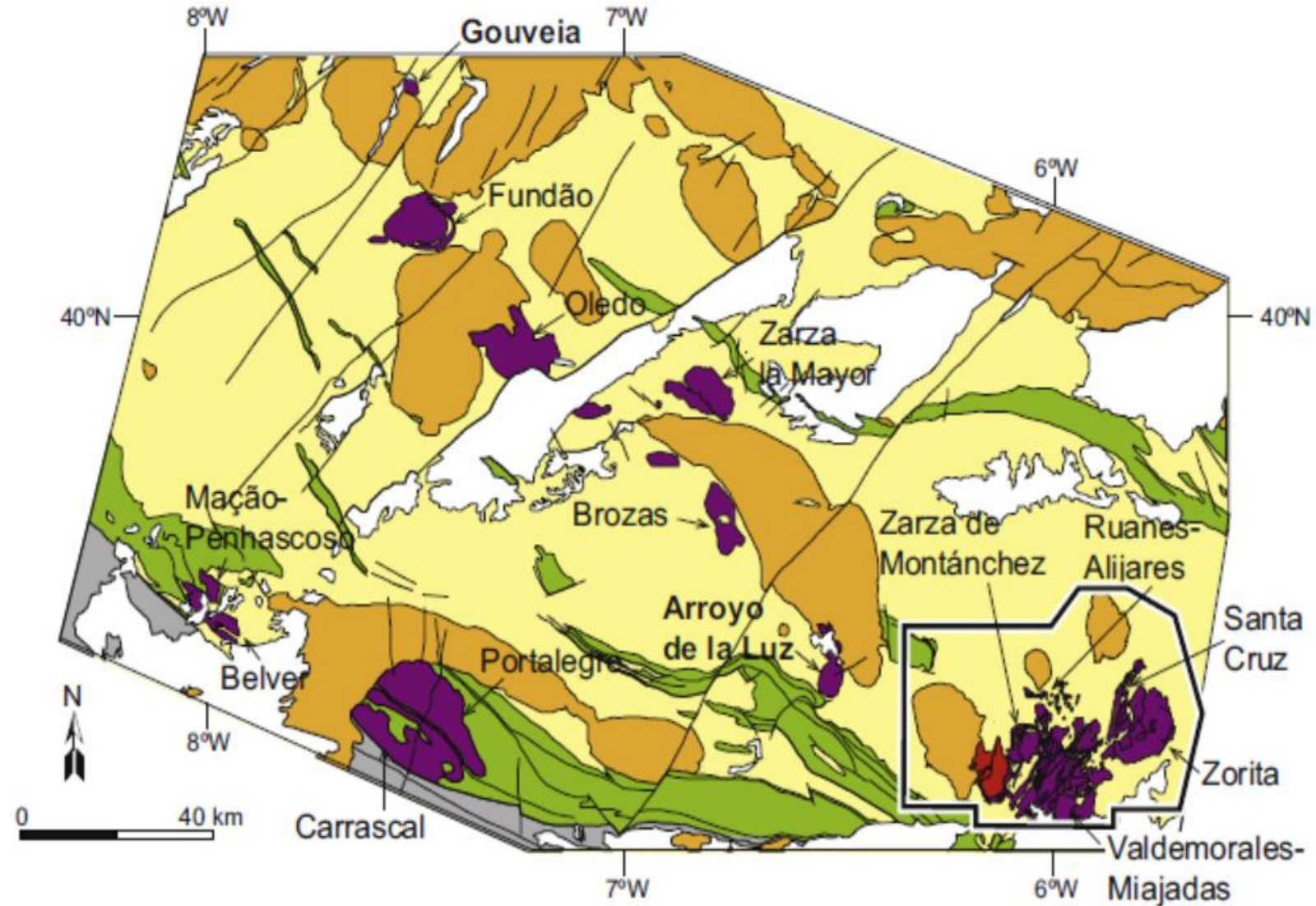
Lithos

journal homepage: www.elsevier.com/locate/lithos

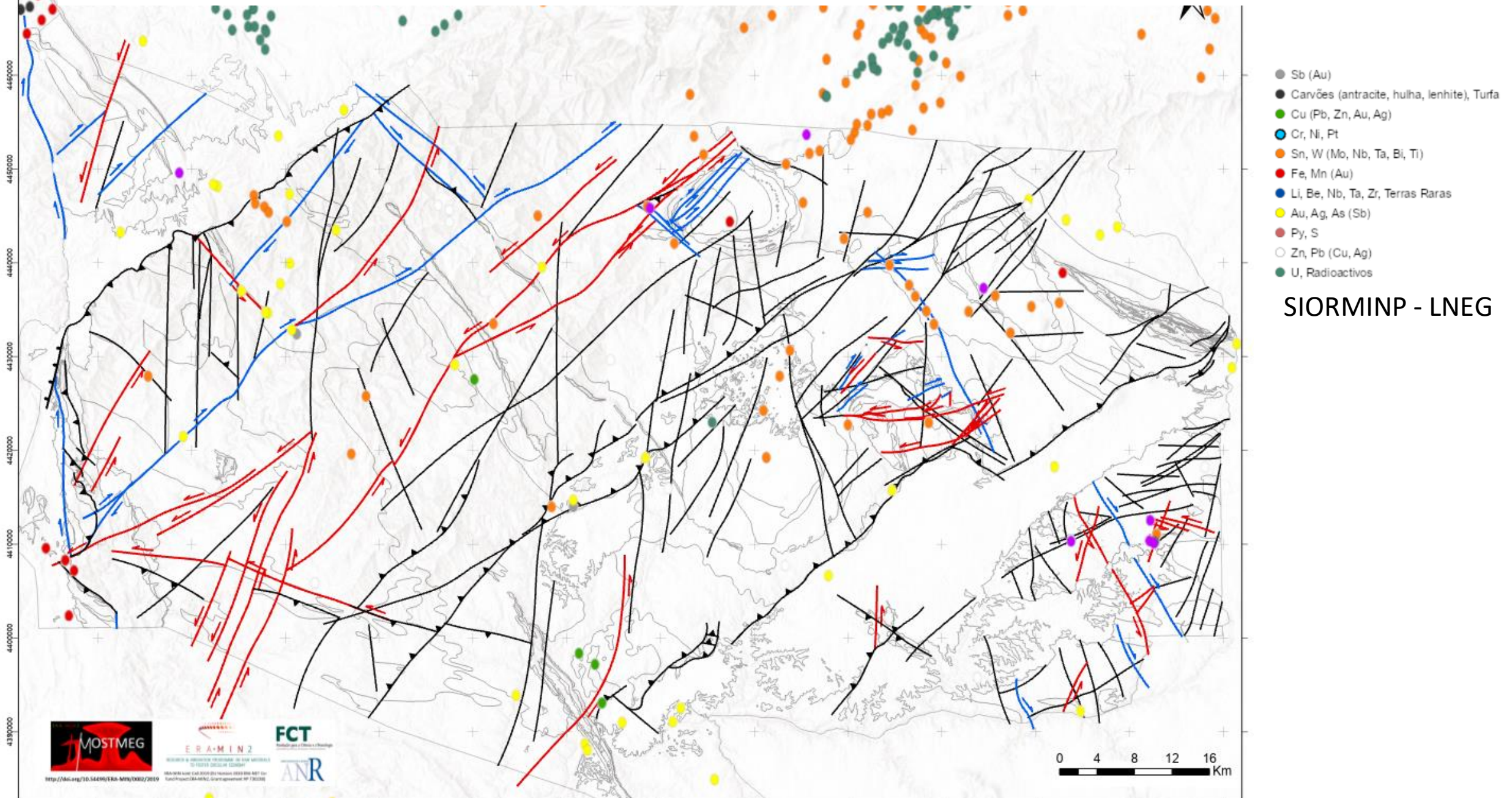
Research Article

Atypical peri-Gondwanan granodiorite–tonalite magmatism from Southern Iberia. Origin of magmas and implications

Antonio Castro ^{a,b,*}, Manuel F. Pereira ^c, Carmen Rodríguez ^d, Carlos Fernández ^e

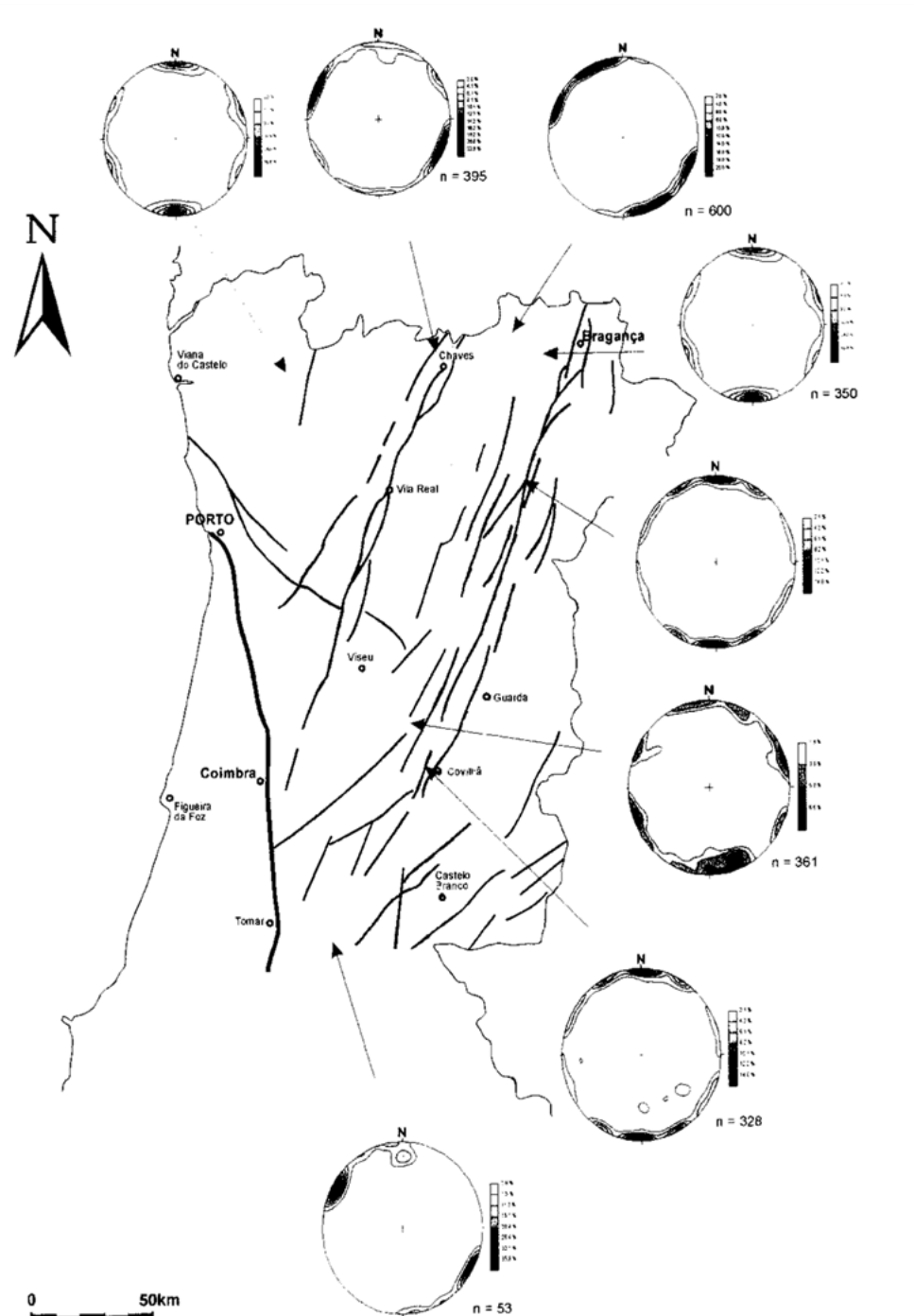


Shear zones | could they act as preferred loci for lode ore-forming processes?

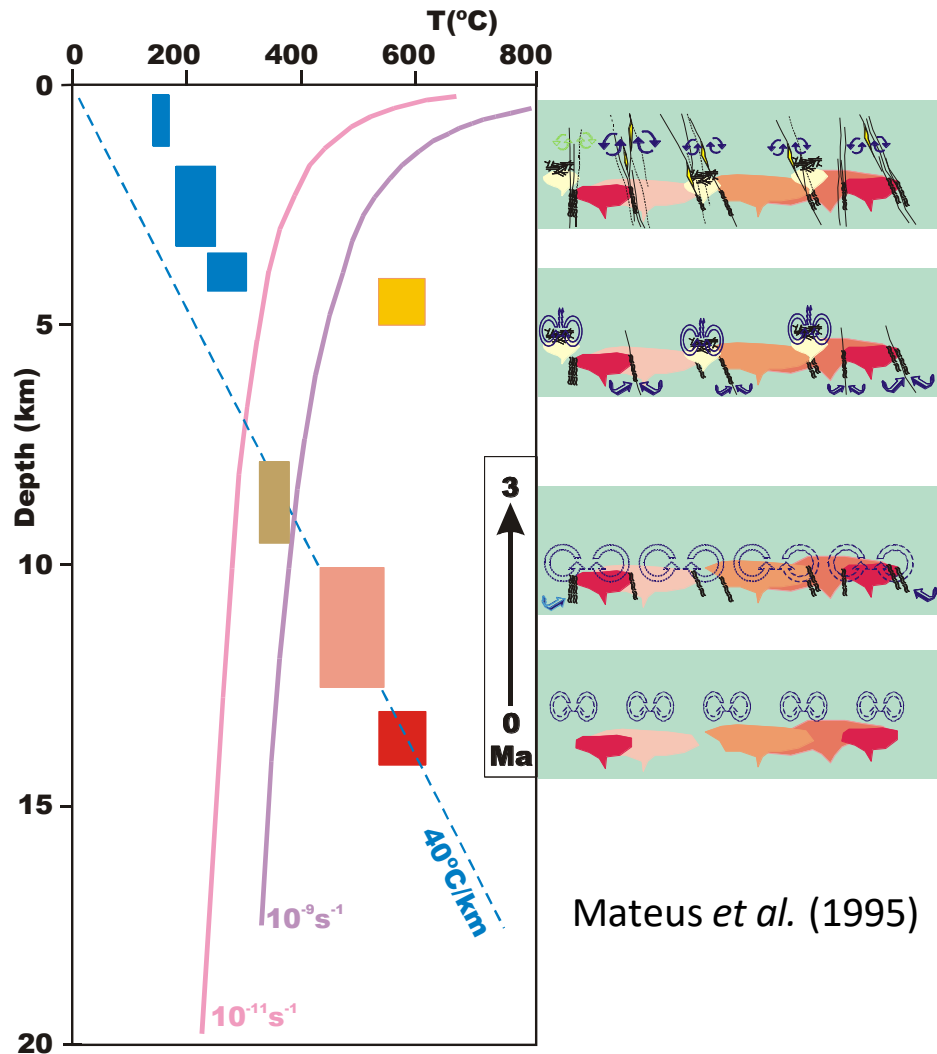


The Late-Variscan strike-slip fault network

*an important fluid circulation
paleosystem*

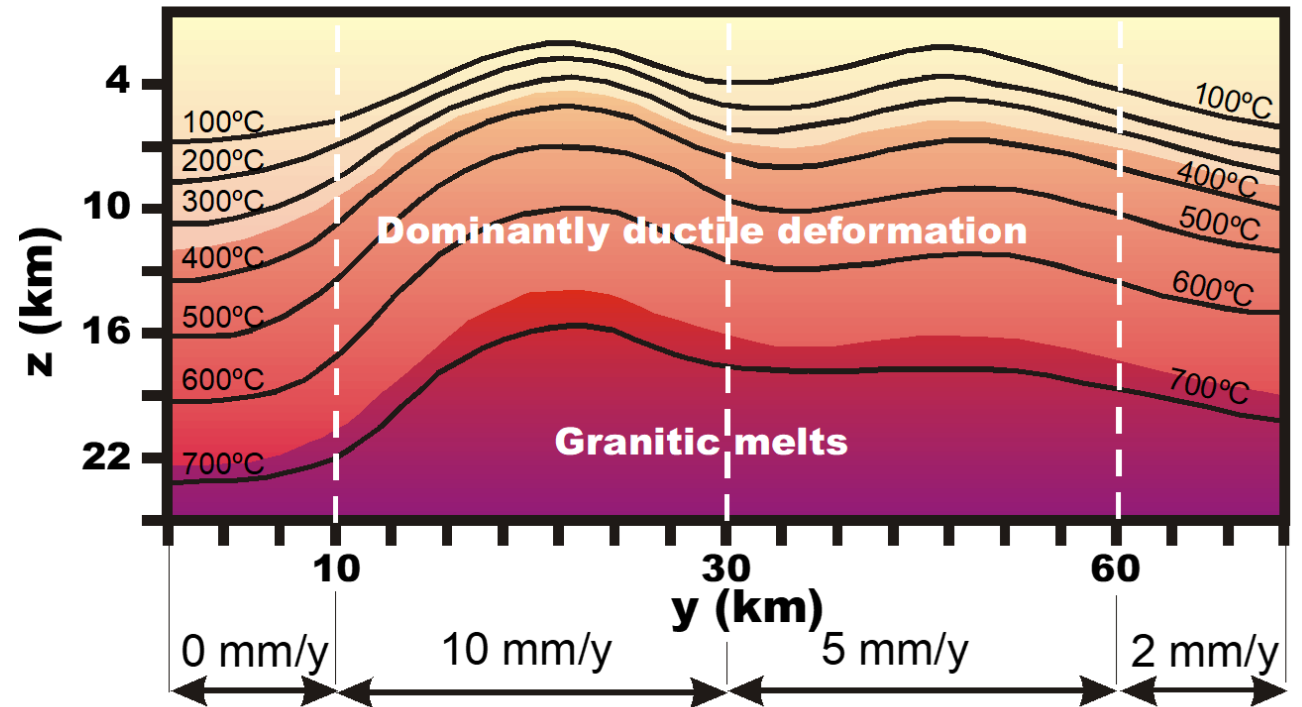


in Marques et al. (2001)



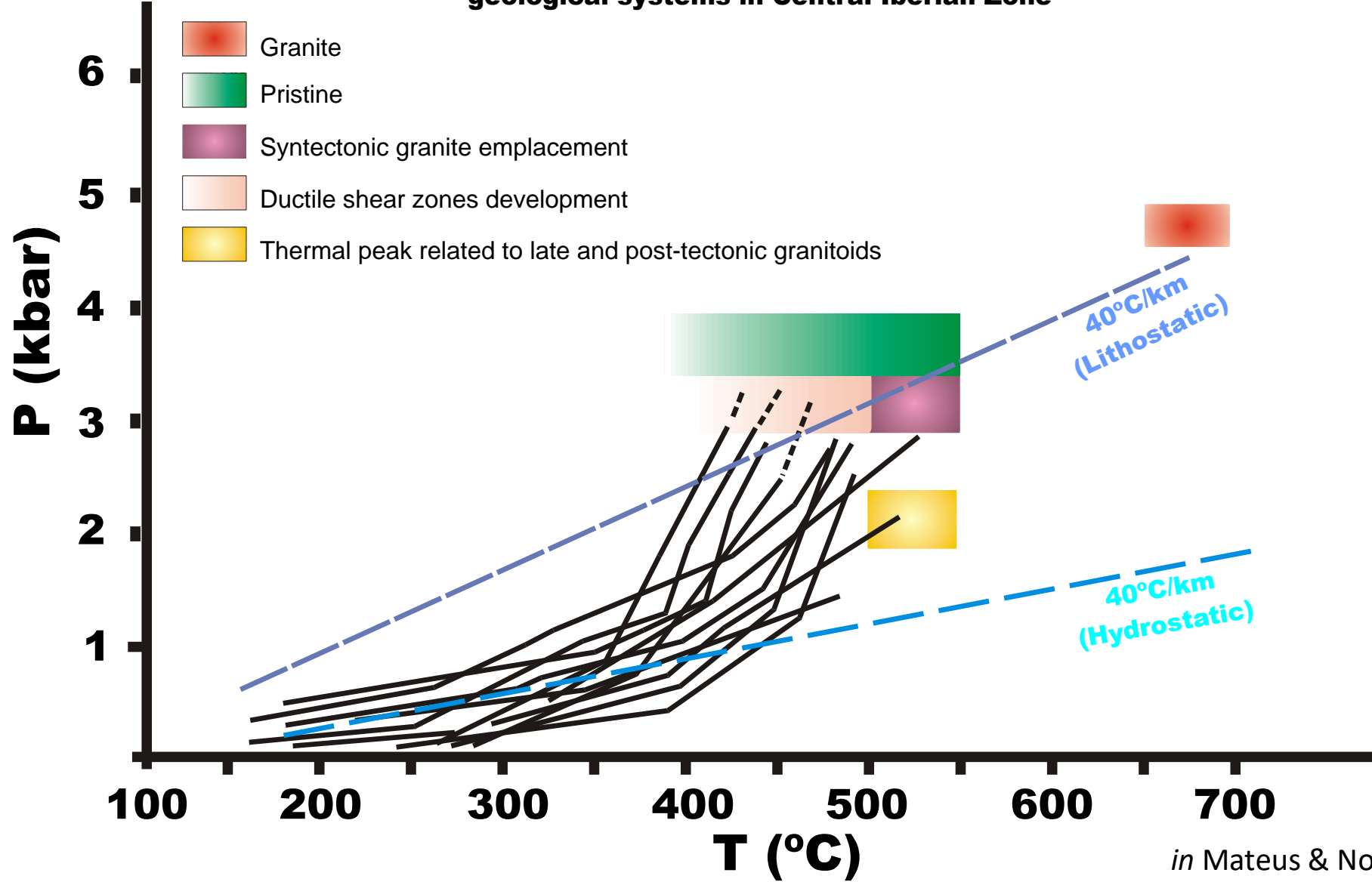
- Syntectonic granite emplacement
- Ductile shear zones development
- Thermal peak related to late and post-tectonic granitoids
- (Proto-)mylonites development in major strike-slip fault zones
- Main hydrothermal stages following the reactivation of major strike-slip fault zones

Composite 2D heat diagram, considering different uplift rates from W to E and $t = 3\text{ Ma}$

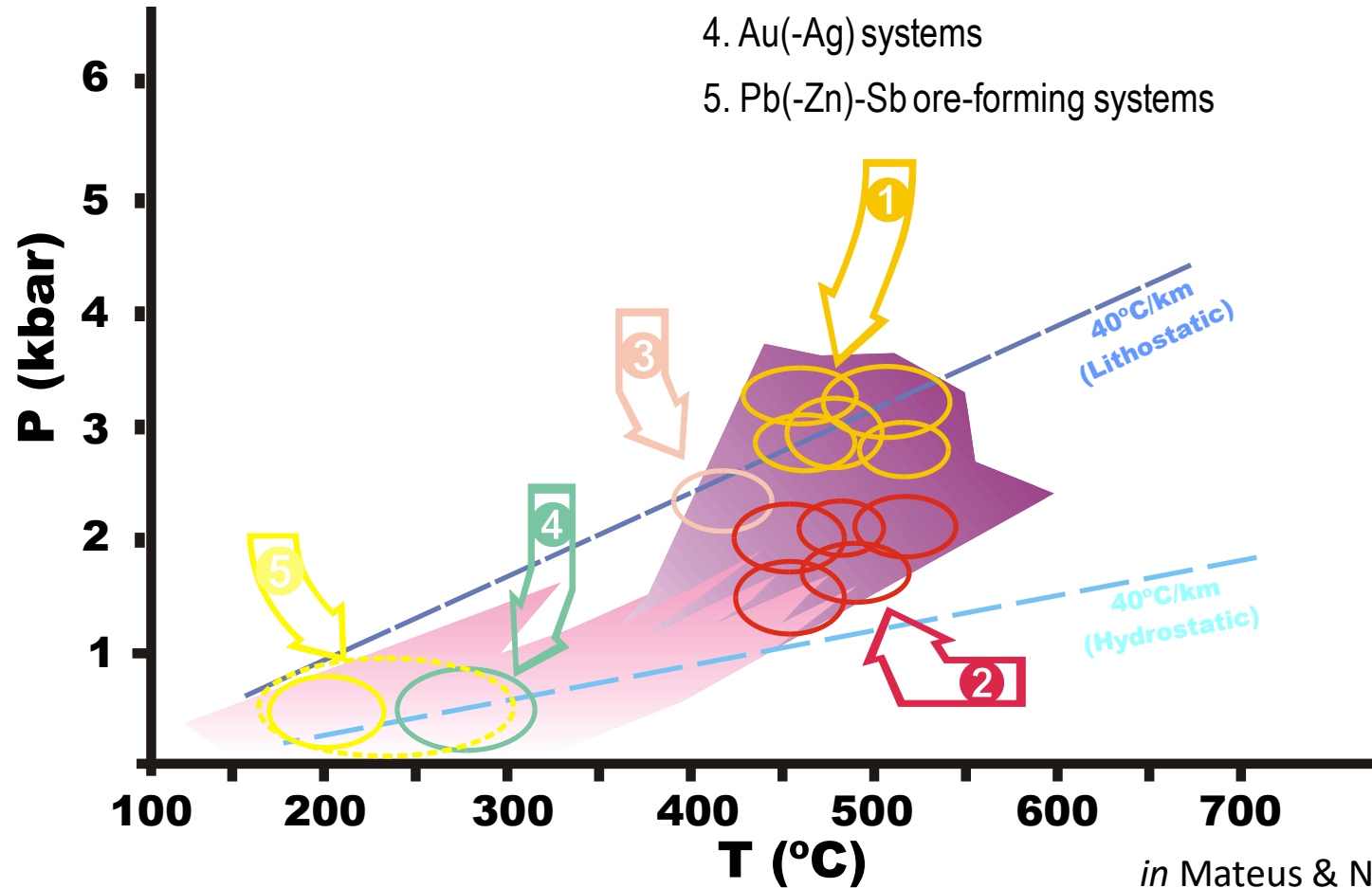


in Mateus & Noronha (2001)

Schematic representation of the P-T evolution recorded for several geological systems in Central-Iberian Zone



1. Early Sn-, P- and Li-(Fe, Mn, Nb, Ta)-bearing pegmatites, W-skarn and Sn(-W) lode deposits;
2. Late W-(Sn) lode systems and W-skarns intimately related to late and post-tectonic granitoids
3. Early hydrothermal precipitates within reactivated major shear zones
4. Au(-Ag) systems
5. Pb(-Zn)-Sb ore-forming systems



in Mateus & Noronha (2001)



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Thank you for your attention!

Variscan granite affected by arrays of shear-controlled qz+tour+ms veins (Alcains)