Grant: 19/10708-7; 17/22292-4; 17/20788-2

Discussing the dating of ferruginous duricrusts: promises from mineralogy of supergene minerals with non-destructive microsampling

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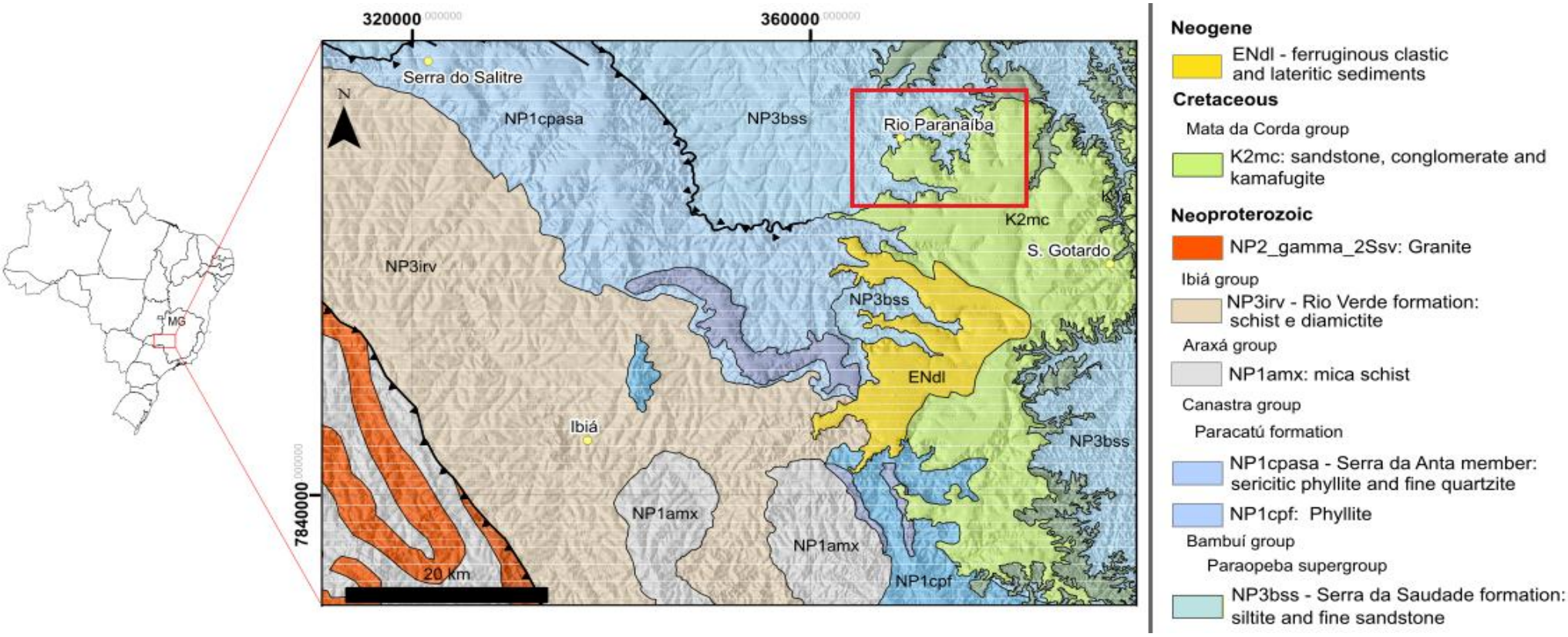
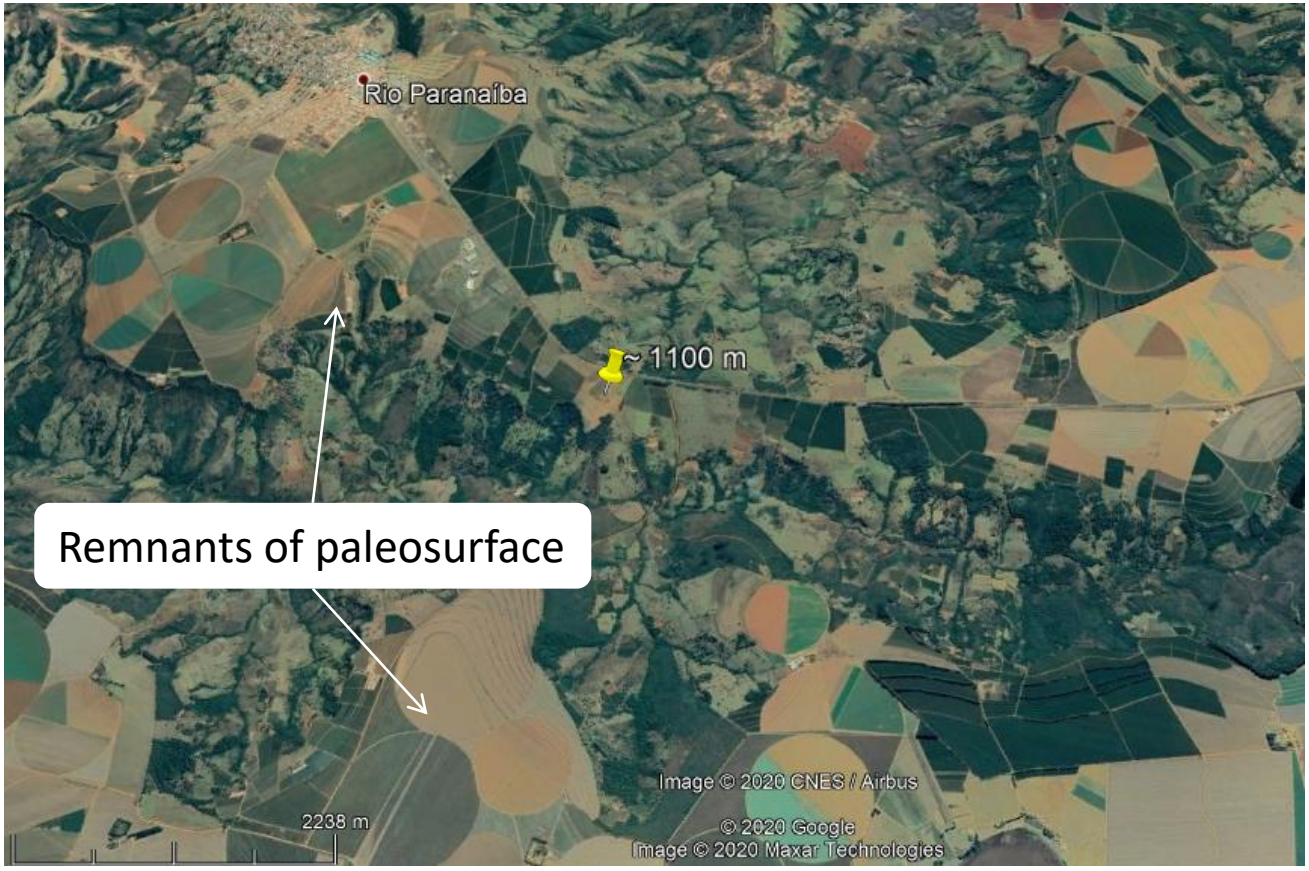
EGU General Assembly 2020

Geological setting of the Alto Paranaíba region (western Minas Gerais state, Brazil)

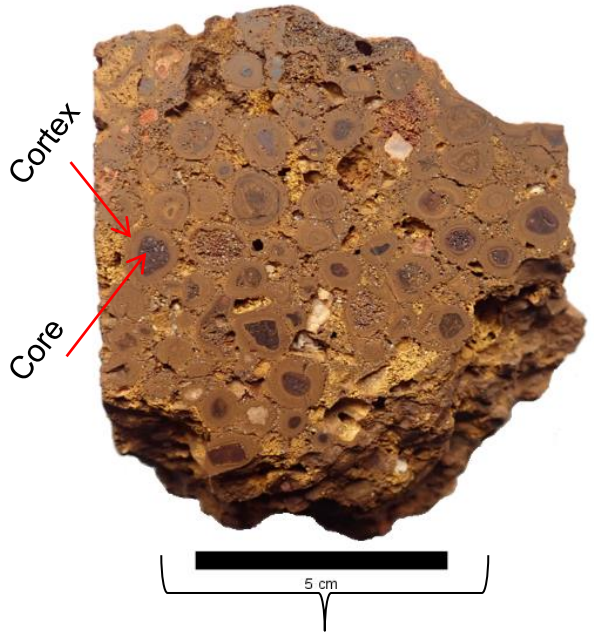


After CPRM, 2014

Methods - sampling



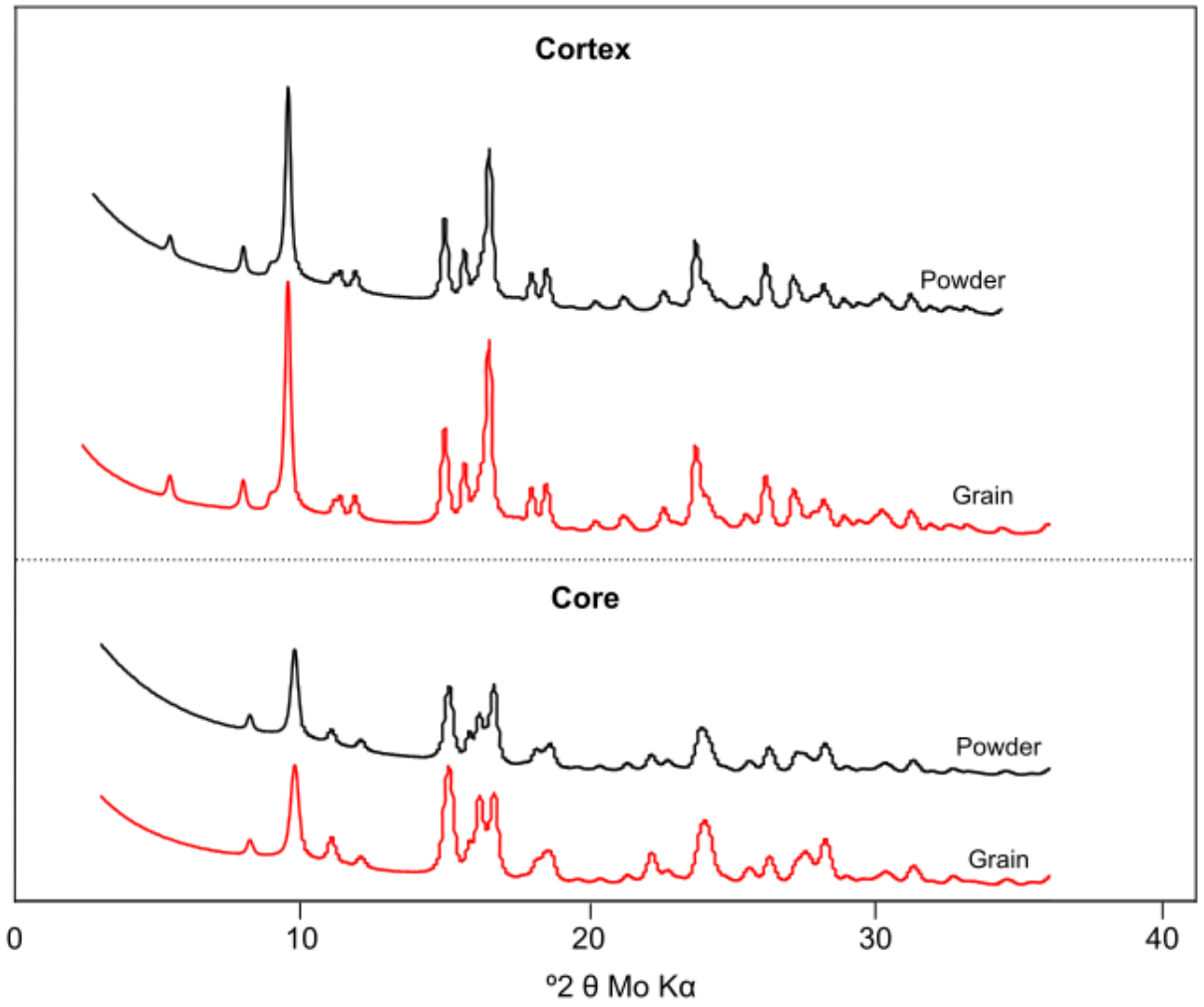
Pisolithic Fe-duricrust



Samples: cortex and core
Preparation: powder and grain

XRD

Results and considerations



Main phases:
Iron oxides and kaolinite

XRD results are similar for both types of sample preparation

Grain samples are more advantageous -> they are not destructive

SEM or (U-Th)/He dating