

Sample ID and provenance

Sample ID: SP36_PtA

Outcrop: Ponta da Atalaia

Lithology: Chert

Unit/facies: Possible UJ

Collection: LusoLit

Thinsection: Yes

Macroscopic description

❖ COLOR

The color distribution is Mix diffuse. The colors are Grayish red purple (5RP 4/2), Pale red purple (5RP 6/2) and Very pale brown (10YR 8/2).

❖ FABRIC

The luster ranges from Medium to Dull and the translucency is Opaque. The feel ranges from Smooth to Semi-smooth and the grain is Fine. The structure is Uneven with a Gradual variation. The patterns are Shaded and Spots (1-49%). The spots are Splotches and Speckling with an Uneven distribution.

❖ INCLUSIONS AND FOSSIL CONTENT

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❖ CORTEX

Cortex cannot be identified. The samples are surrounded by altered surfaces, white and smooth, probably due to the secondary setting in which they were found. When tested with dilute hydrochloric acid (HCL 10%), the reaction was Strong. The parent rock may be a Limestone.

❖ QUALITY

The fracture is Conchoidal and the surface is Homogeneous. The knapping quality is Good.

❖ OBSERVATION

The samples are not *in situ*. One of the samples is probably an archaeological artefact, making this sample not representative for chert outcrops in the area.

Outcrop description

❖ OUTCROP CHARACTERISTICS

Type of outcrop: Isolated find

Visibility: Good

Accessibility: Easy

State of site: -

❖ CHERT NODULES/BEDS DESCRIPTION

Type of chert nodule: -

Sample variability: -

Frequency: -

Nodule description: -

❖ SHORT DESCRIPTION

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Petrography analysis form

❖ TEXTURAL COMPOSITION

Texture: Wackestone

Microstructure: Massive

❖ COMPOSITION

ORTHO-CHEM	Type	%	Description
MiC quartz (gr)	SE	90	-
MG quartz (gr)	SE	5	Replacing fossils and spheres.
Dolomite	SE	<1	-
Chalcedony (fb)	SE	5	Replacing spheres.

ALLO-CHEM	Freq	Description
Oxide grains	Very frequent	-
Oxide patina	Common	-

BIOCLASTS	Freq	Description
Unidentifiable fossils (ghosts)	Very frequent	Replaced by megacrystalline quartz or chalcedony.

Calcispheres	Very frequent	Filled with fibrous chalcedony (always) and megacrystalline quartz (common).
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❖ OTHER TEXTURAL CHARACTERISTICS

Total porosity (%): 5

Porosity type: Vuggy

Other sedimentary structures: -

Observations

- ❖ Dolomite grains might be quartz.

Analysis information

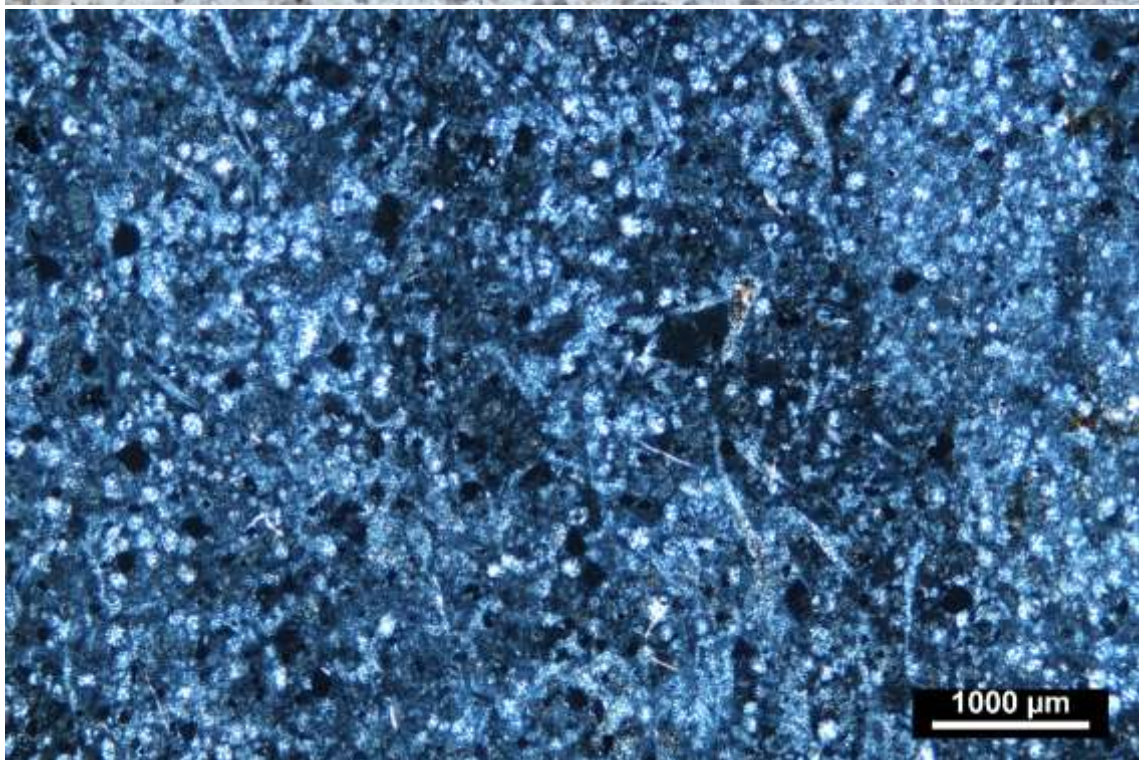
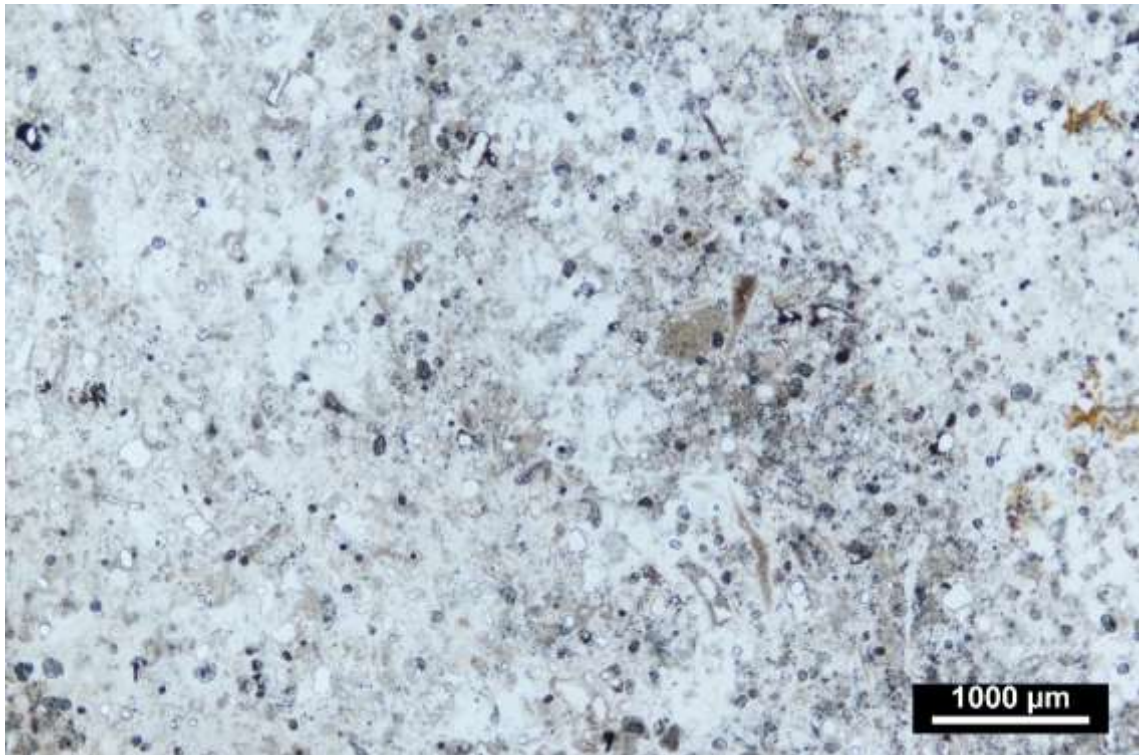
- ❖ ANALYST: JB
- ❖ DATE: 05.19.2022
- ❖ EQUIPMENT: Nikon LV100ND

Photos

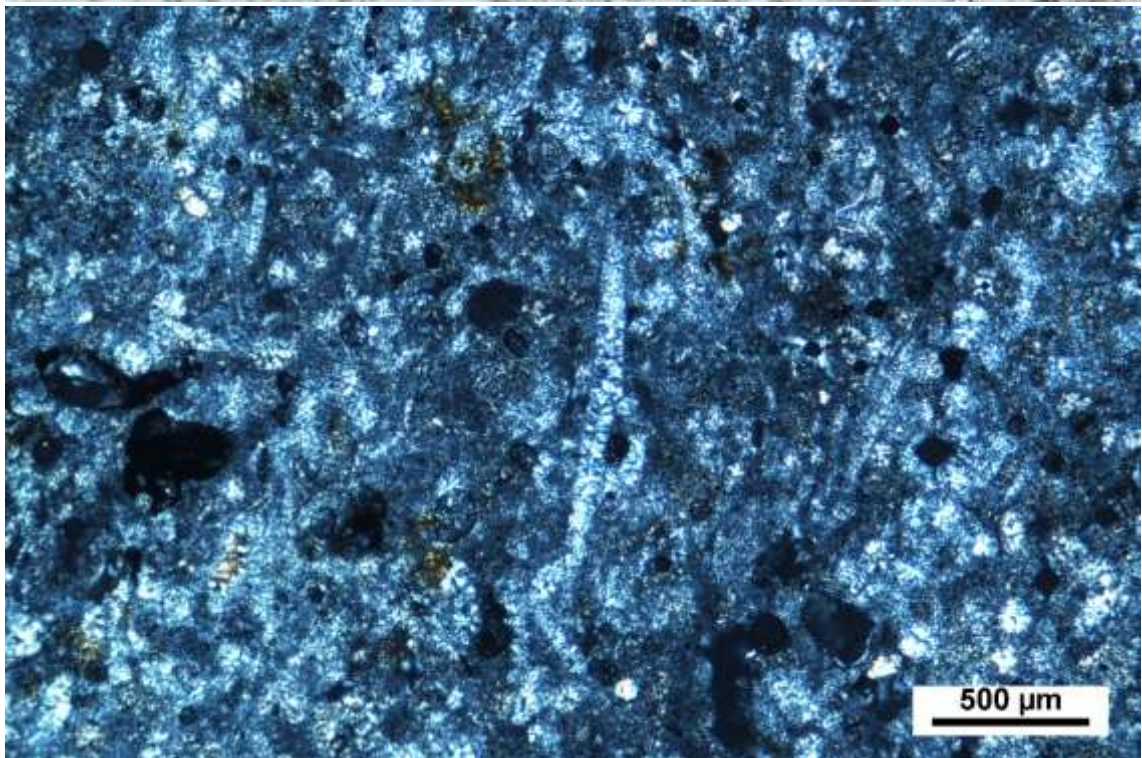
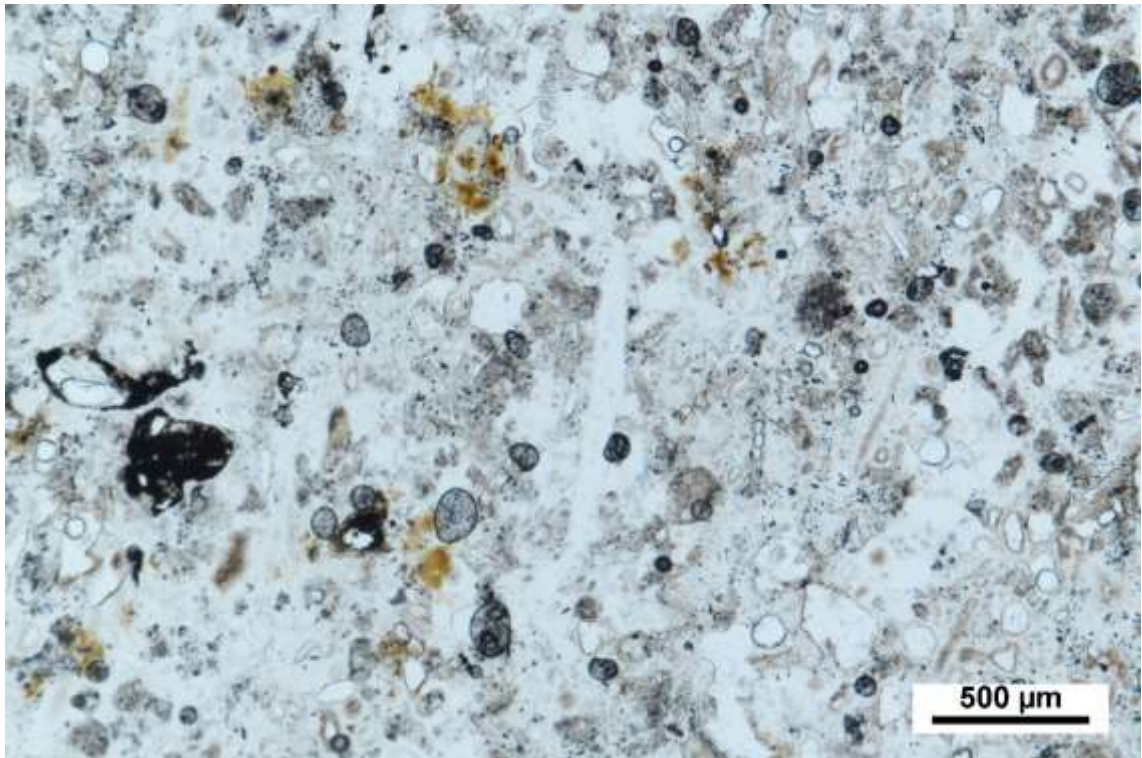
Photo ID	Aug.	Description
SP36_001	2x	Chert filled with very frequent fossil ghosts replaced by chalcedony. Calcispheres seem to be very frequent and there are some concentrations of oxide patina.
SP36_002	4x	Detail of several unidentifiable fossils and poorly preserved calcispheres. Long fossils are very common.
SP36_003	2x	General view of the edge of the chert. A thin alteration surface with a concentration of oxides is visible, possibly due to post-depositional alterations. An unidentifiable fossil or porosity filled with several

		generations of chalcedony is also visible in the sample.
SP36_004	4x	Detail of the calcispheres replaced by chalcedony.
SP36_005	10x	Detail of the altered surface and a concentration of oxide patina.
SP36_006	10x	Detail of the calcispheres replaced by chalcedony.
SP36_007	4x	Detail of a concentration of opaque minerals, oxide grains and oxide patina. Fossils seem to be worse preserved in this area.
SP36_008	10x	Detail of the altered surface of the chert with small concentrations of oxide patina.
SP36_009	4x	Concentration of porosity in the chert. Calcispheres are less visible in this area.

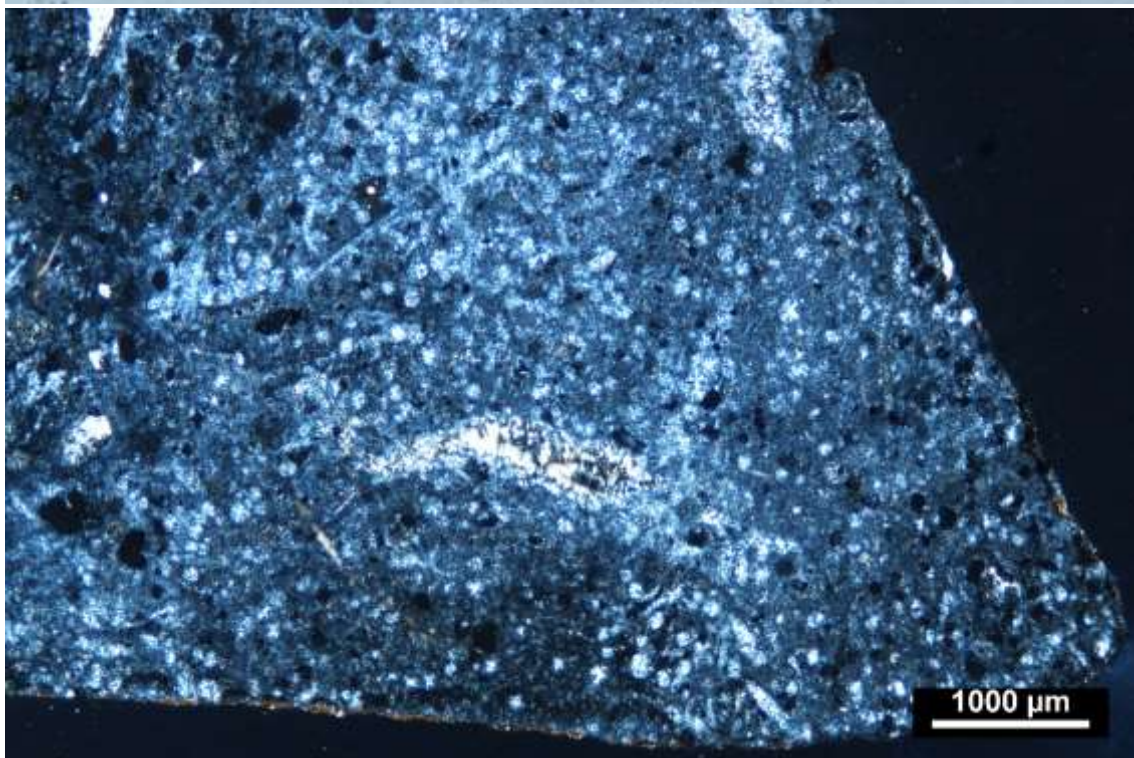
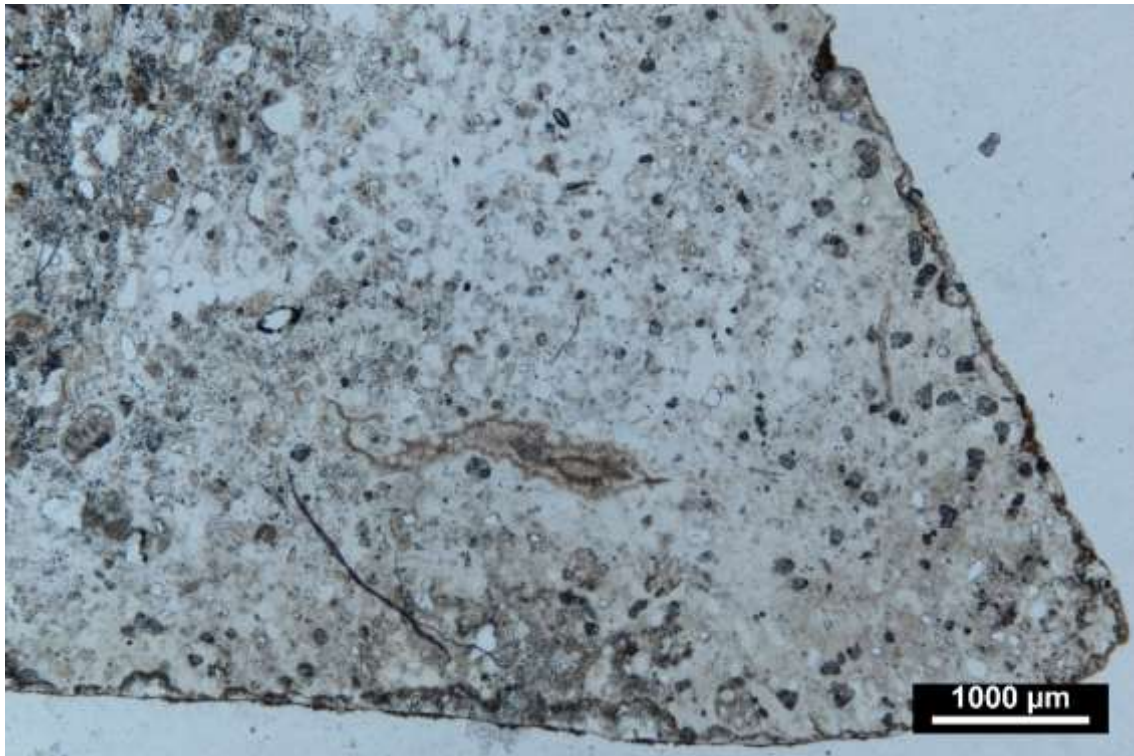
Petrography photos



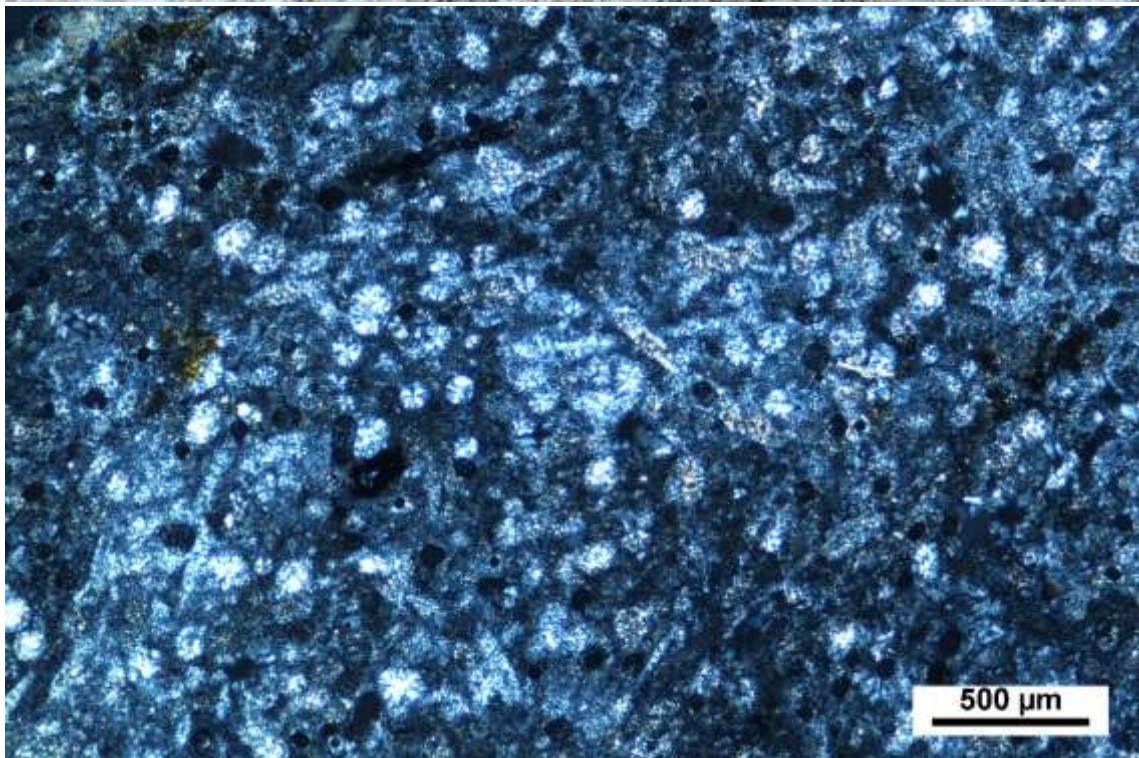
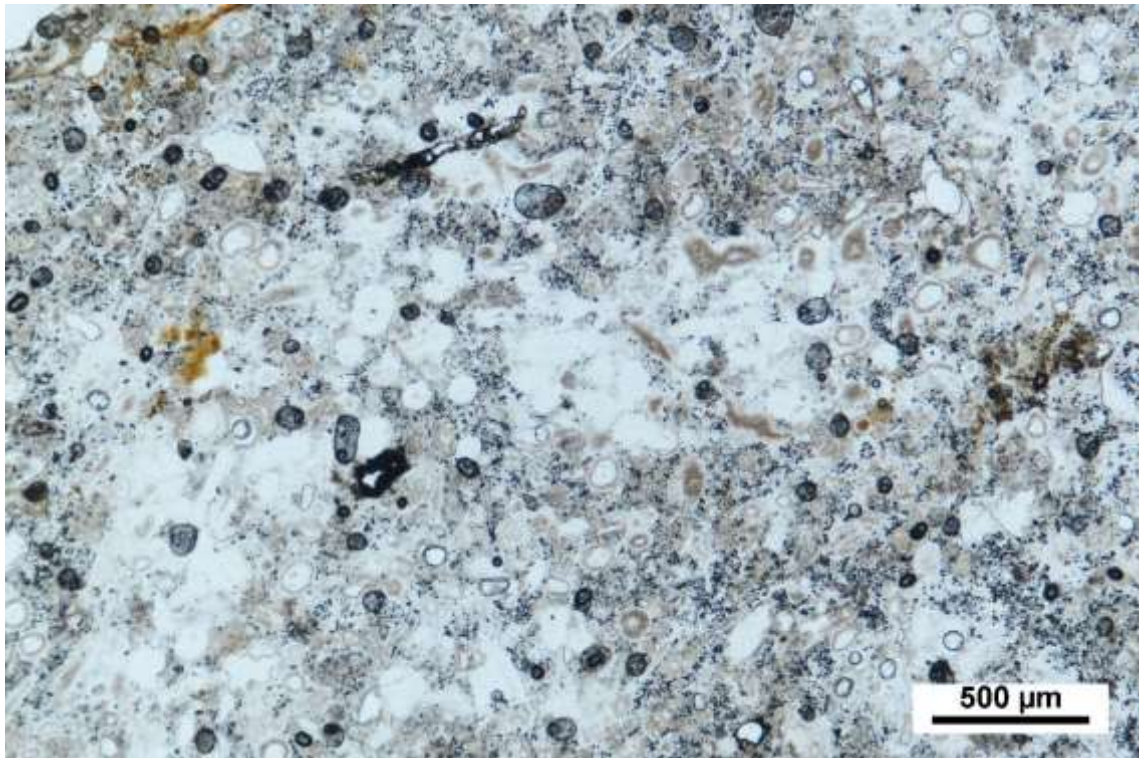
SP36_PtA_001 (PPL and XPL)



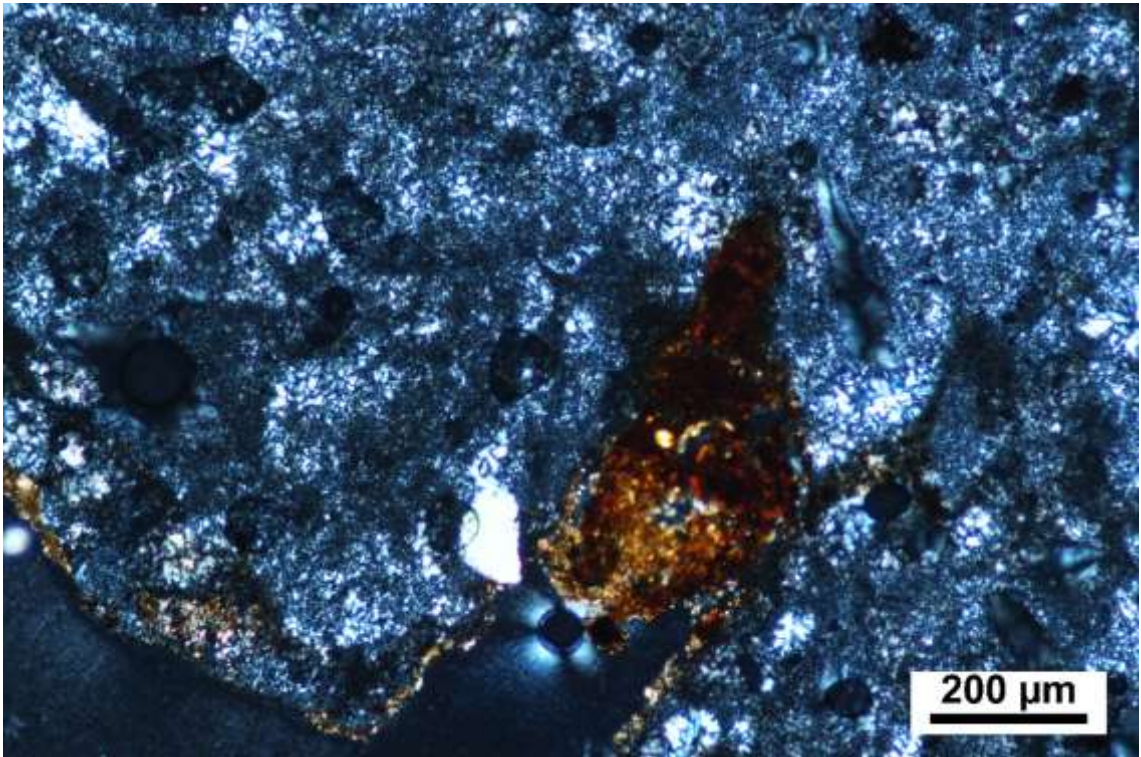
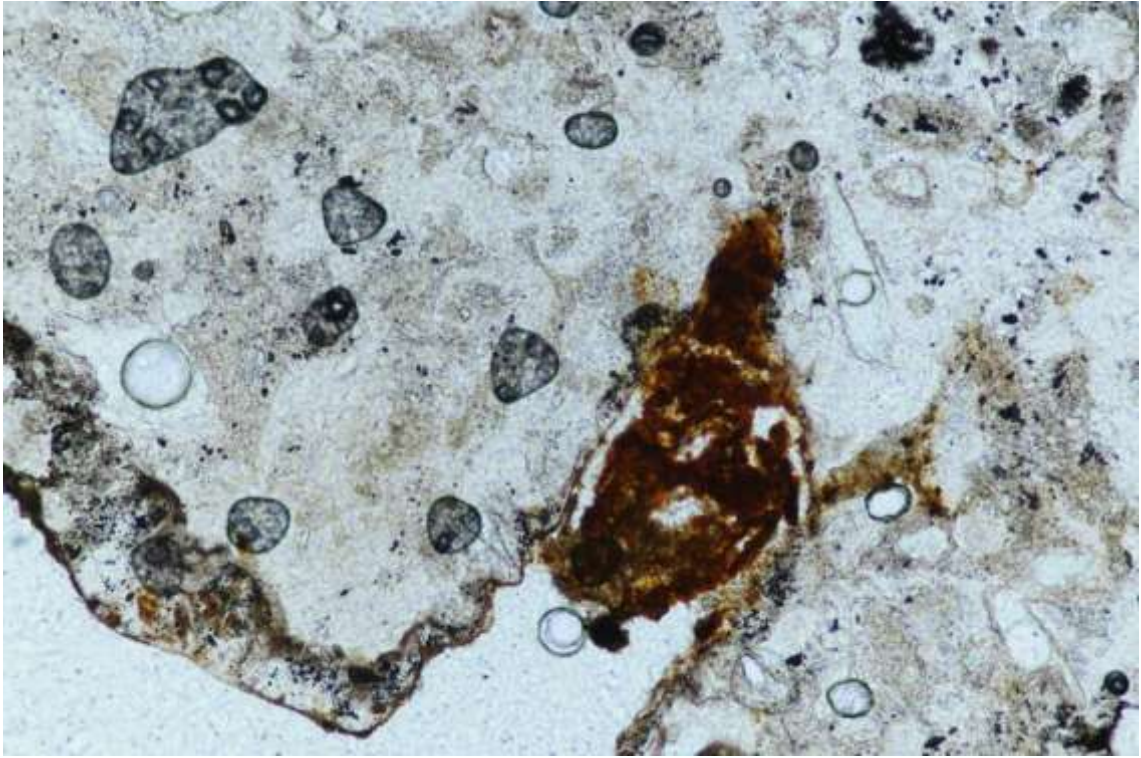
SP36_PtA_002 (PPL and XPL)



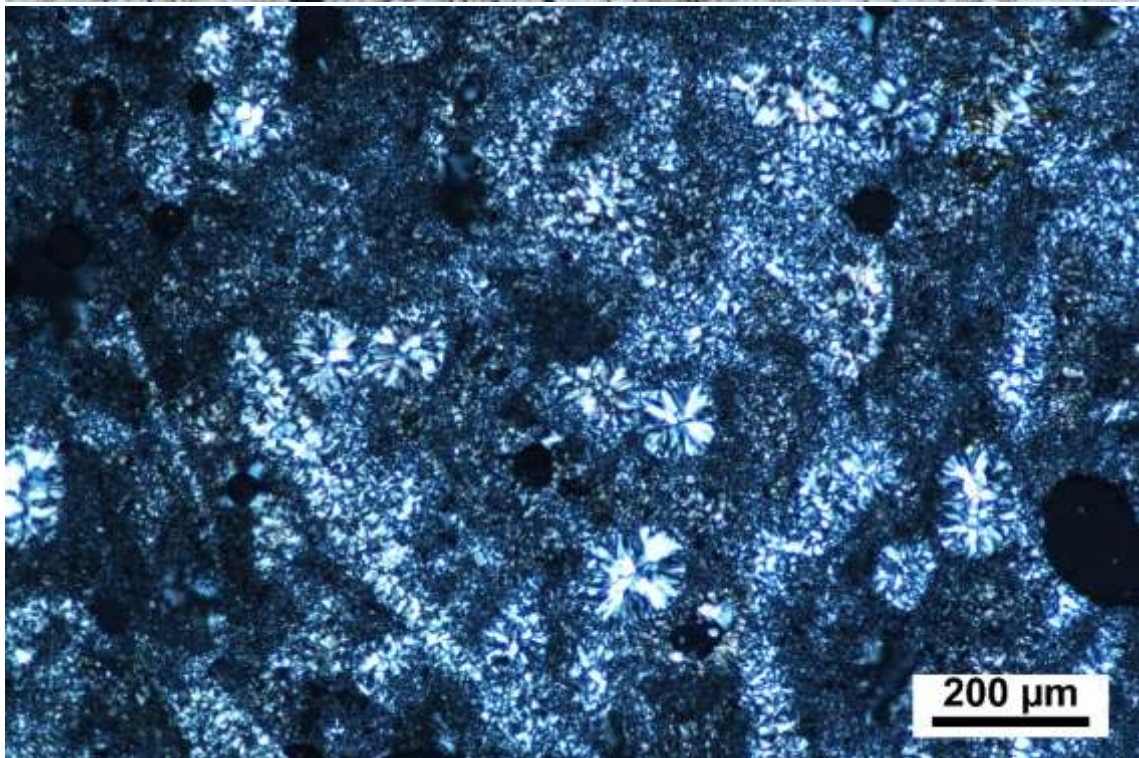
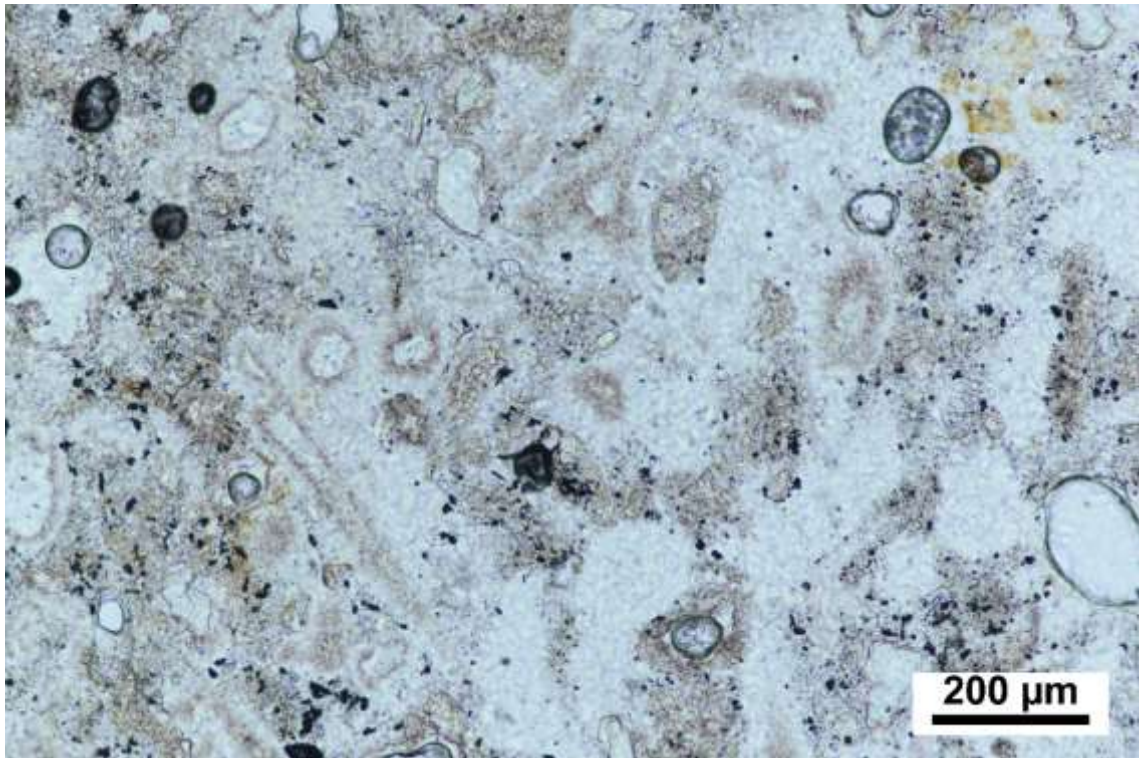
SP36_PtA_003 (PPL and XPL)



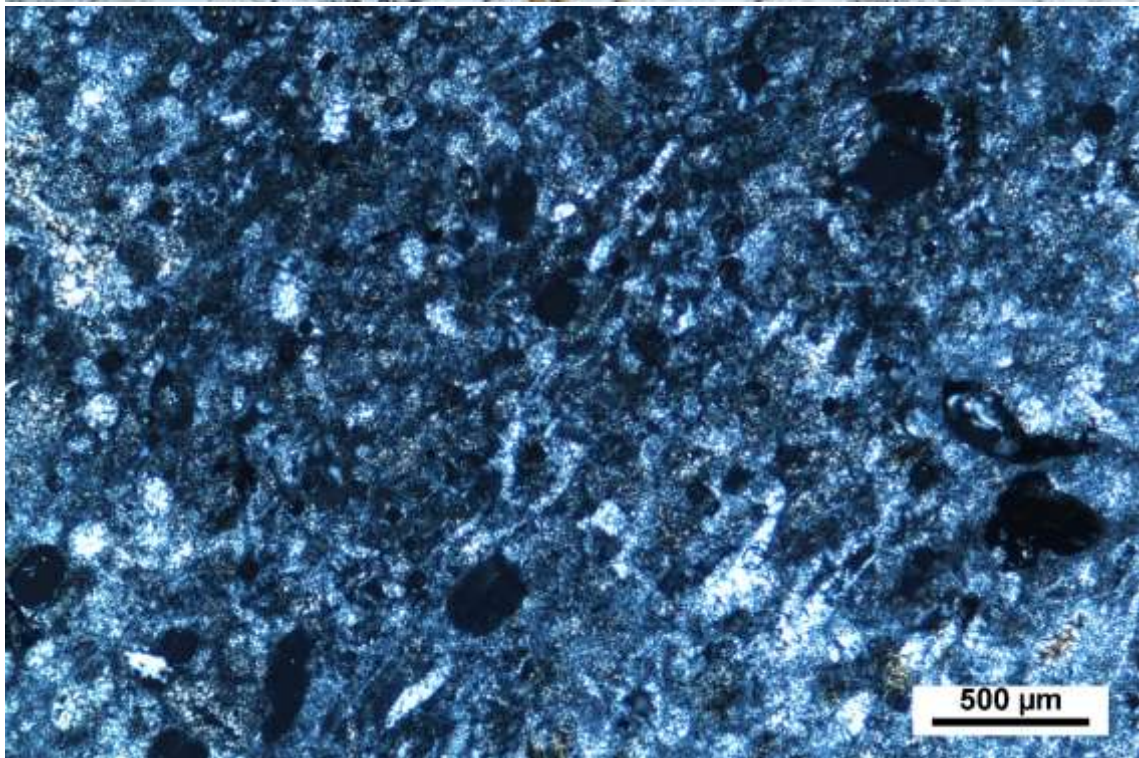
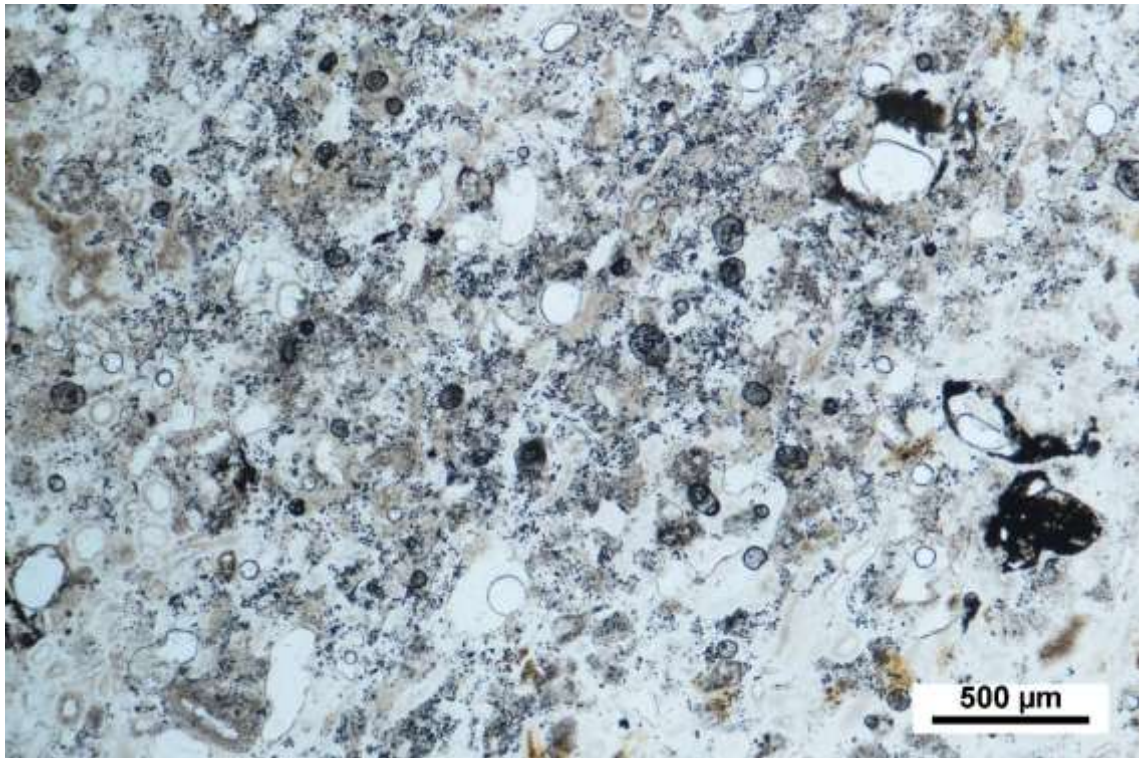
SP36_PtA_004 (PPL and XPL)



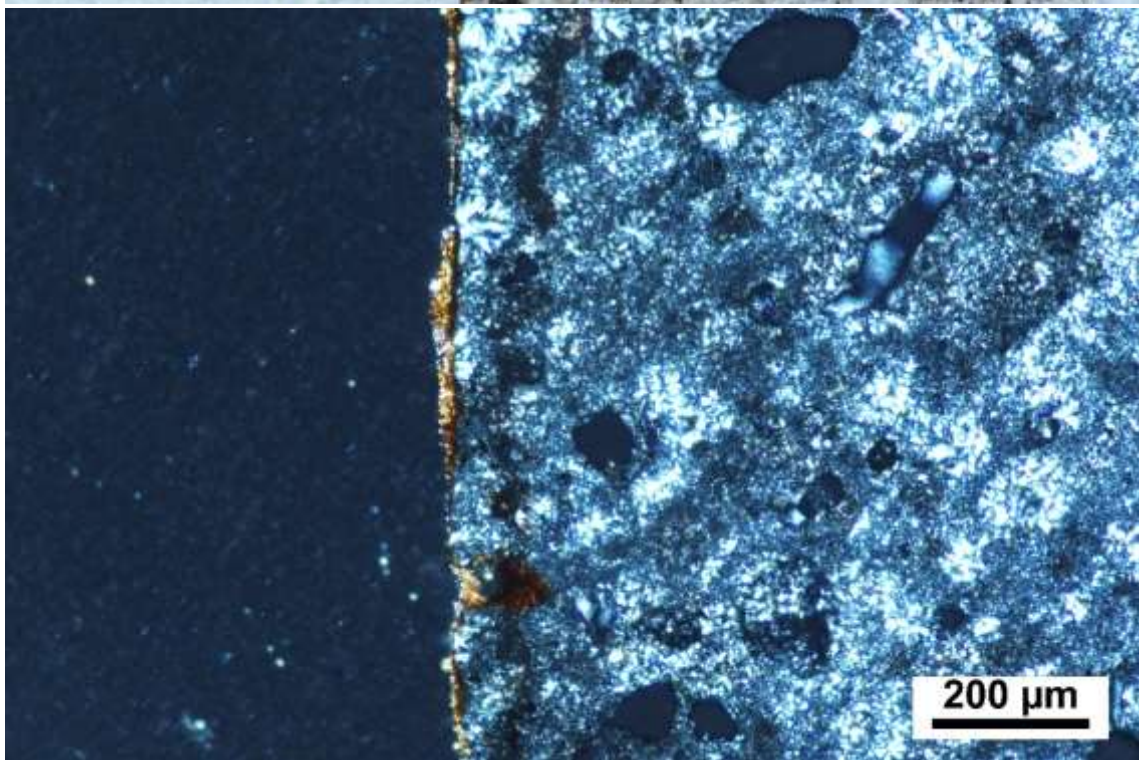
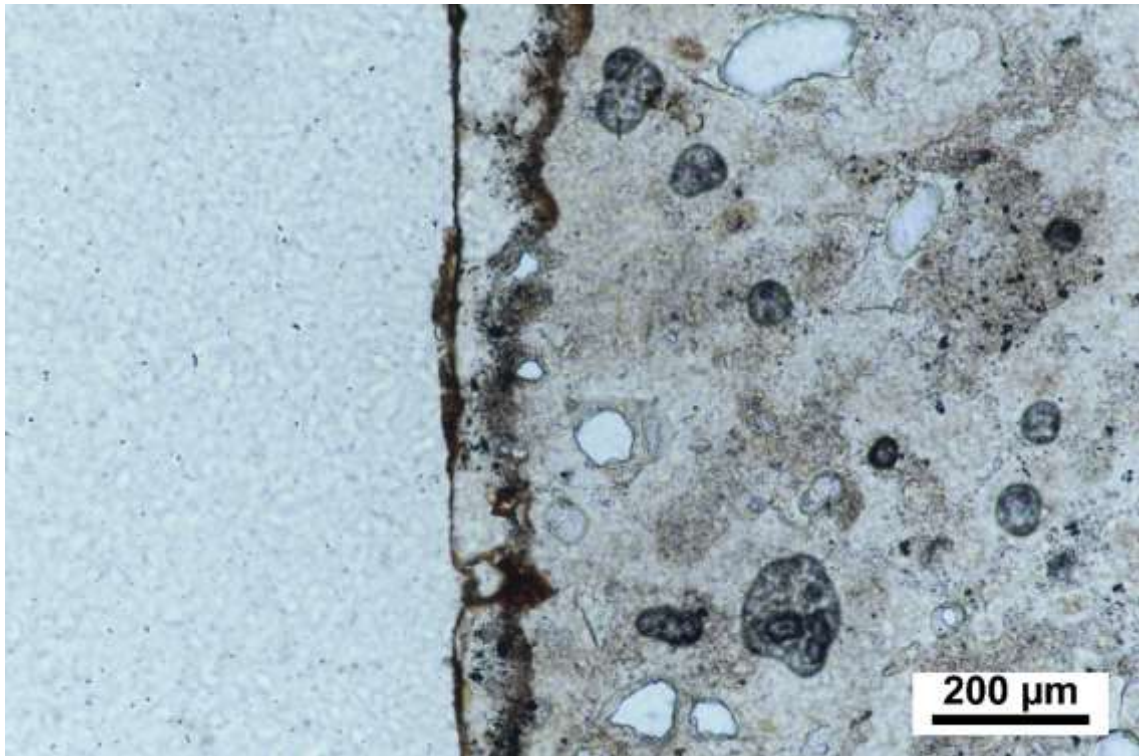
SP36_PtA_005 (PPL and XPL)



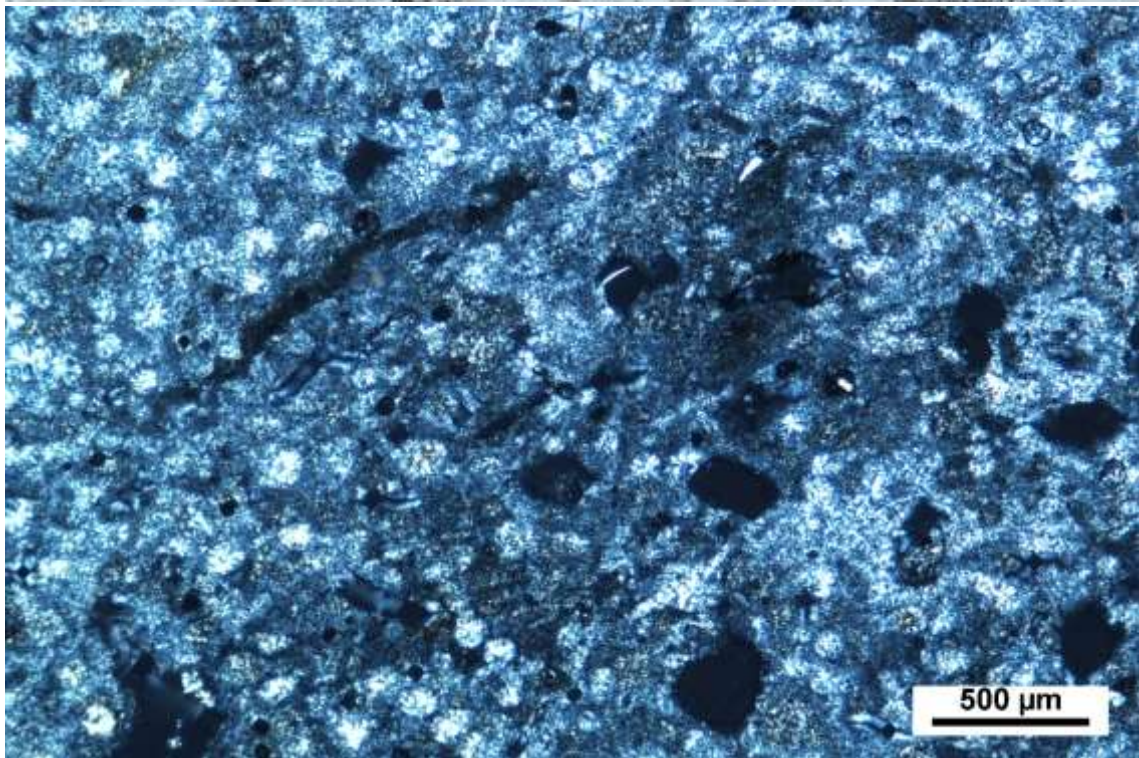
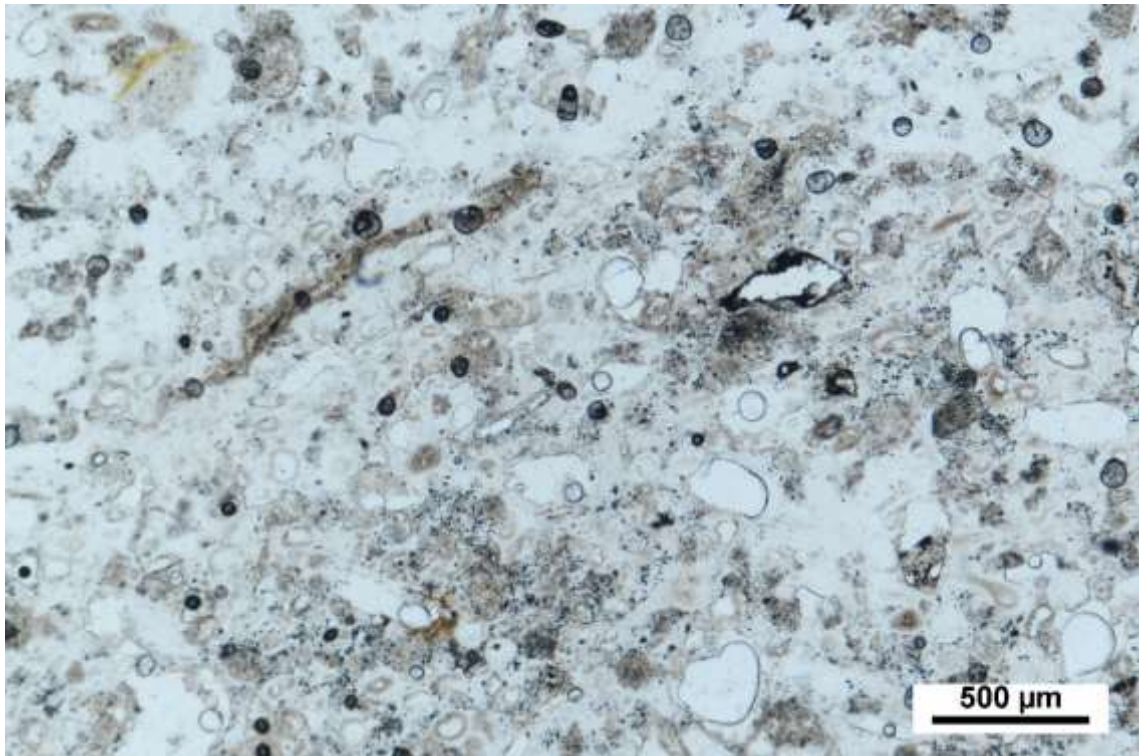
SP36_PtA_006 (PPL and XPL)



SP36_PtA_007 (PPL and XPL)



SP36_PtA_008 (PPL and XPL)



SP36_PtA_009 (PPL and XPL)

Macroscopic photos

