

## Sample ID and provenance

Sample ID: SP33\_FZF

Lithology: Chert

Collection: LusoLit

Outcrop: Foz dos fornos

Unit/facies: Lower Jurassic

Thinsection: Yes

---

## Macroscopic description

### ❖ COLOR

The color distribution is Single. The colors are White 10YR 8/1 and Light gray (10YR 7/1).

### ❖ FABRIC

The luster is Dull and the translucency is Opaque. The feel is Smooth to Semi-smooth and the grain is Fine. The distribution is Uneven with an Gradual variation. The patterns are Spots (1-49%), which are Splotched with an Uneven distribution.

### ❖ INCLUSIONS AND FOSSIL CONTENT

-

### ❖ CORTEX

The cortex is from an Outcrop with a Gradual transition. When tested with dilute hydrochloric acid (HCL 10%), the reaction was weak. The parent rock may be a dolomite or dolomitic limestone.

### ❖ QUALITY

The fracture is Conchoidal and the surface has Fractures. The knapping quality is Good.

### ❖ OBSERVATION

The chert nodules in this sample are small and hard to distinguish at times from the silicified matrix around it.

There are some pink and yellow areas similar to other Foz dos Fornos nodules.

## Outcrop description

### ❖ OUTCROP CHARACTERISTICS

**Type of outcrop:** Primary

**Visibility:** Good

**Accessibility:** Moderate

**State of site:** Good

### ❖ CHERT NODULES/BEDS DESCRIPTION

**Type of chert nodule:** Nodule

**Sample variability:** Variable

**Frequency:** Abundant

**Nodule description:** The nodules vary from irregular to oval, from 4 to 8cm wide.

### ❖ SHORT DESCRIPTION

The outcrop is located on the cliff with moderate access. The nodules are abundant and easily visible. These are either oval or irregular, from 4 to 8cm in width. The outcrops is in good state since it seems to be nearly undisturbed. Rare loose chunks of chert can be found around, probably due to the inclination of the cliff. The parent rock is hard, making the removal of the chert nodules difficult.

## Petrography analysis form

### ❖ TEXTURAL COMPOSITION

**Texture:** Mudstone

**Microstructure:** Massive

### ❖ COMPOSITION

ORTHOCHEM	Type	%	Description
MiC quartz (gr)	SE	90	-
Dolomite	SE	9	-
Chalcedony (fb)	SE	1	Replacing fossils.

ALLOCHEM	Freq	Description
Oxide grains	Common	-
Oxide patina	Uncommon	Concentrated mostly within a fracture.

BIOCLASTS	Freq	Description
Unidentifiable fossils (ghosts)	Uncommon	Poorly preserved and replaced by chalcedony.

### ❖ OTHER TEXTURAL CHARACTERISTICS

**Total porosity (%):** <1

Porosity type: -

Other sedimentary structures: -

## Observations

❖ -

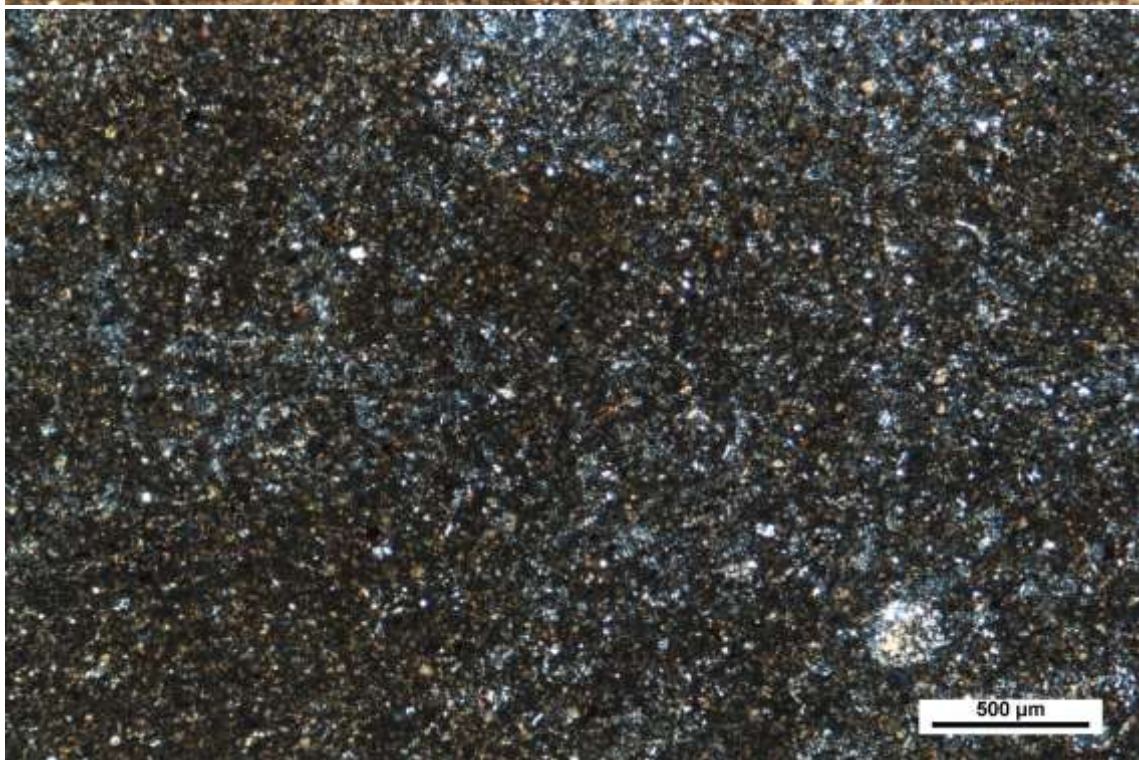
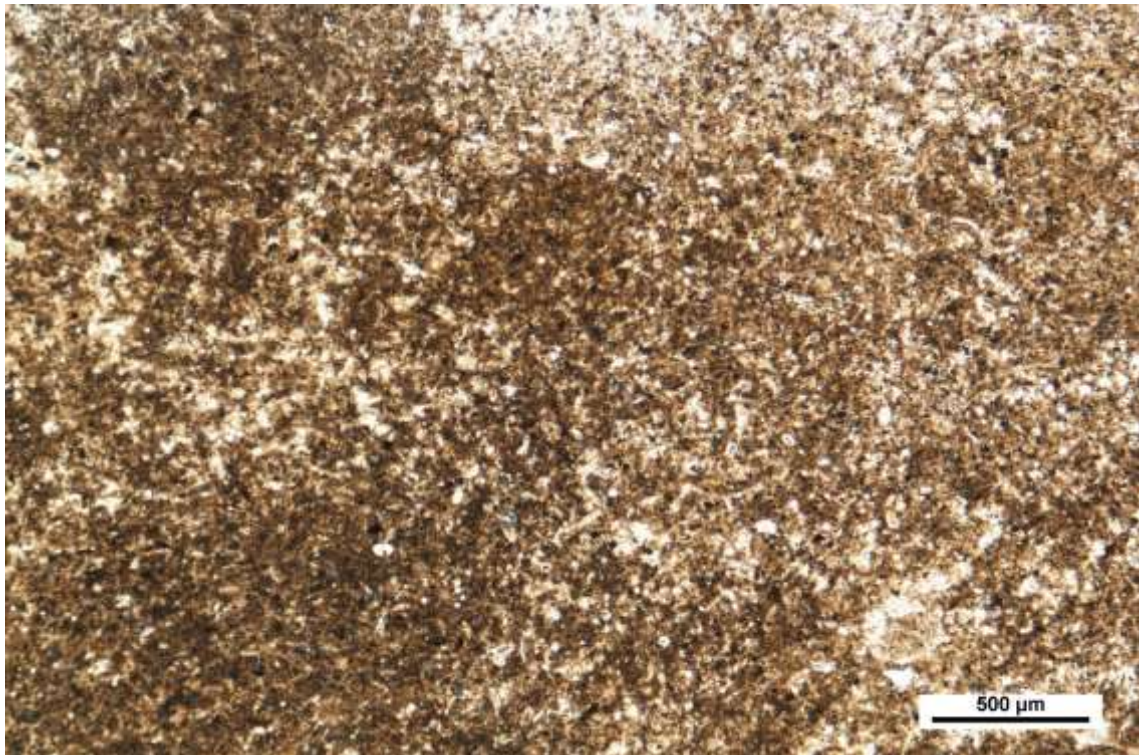
## Analysis information

- ❖ ANALYST: JB
- ❖ DATE: 06.01.2022
- ❖ EQUIPMENT: Nikon LV100ND

## Photos

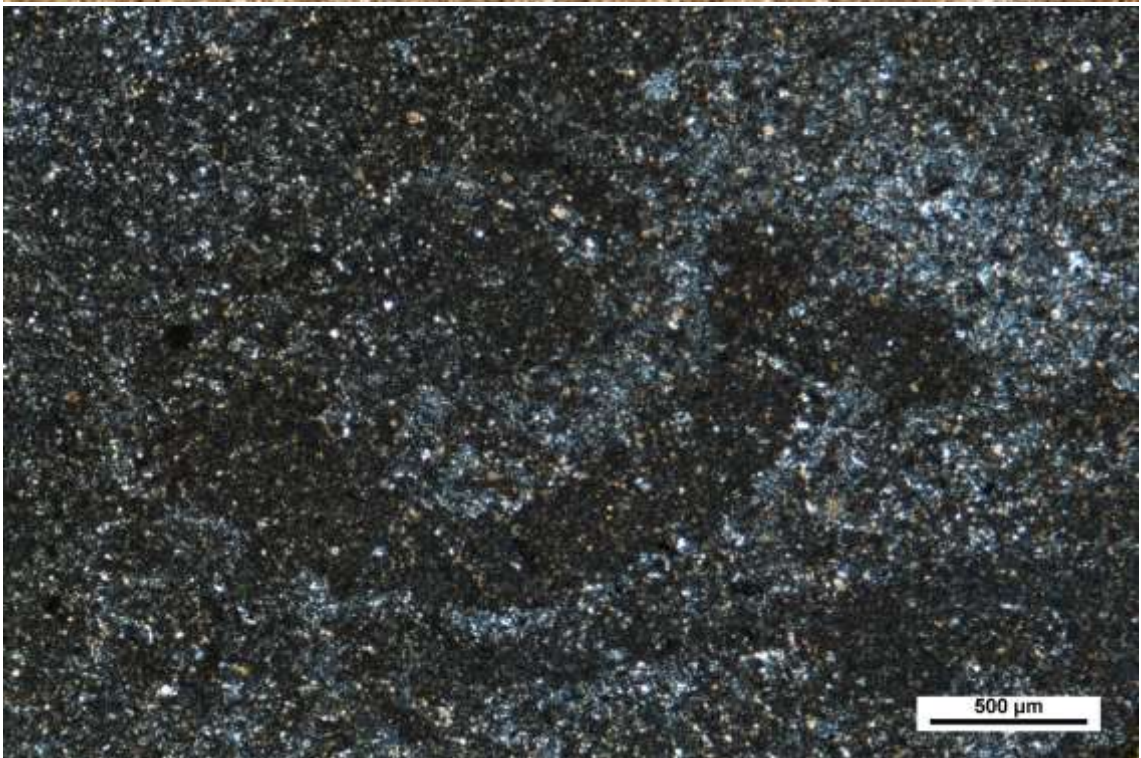
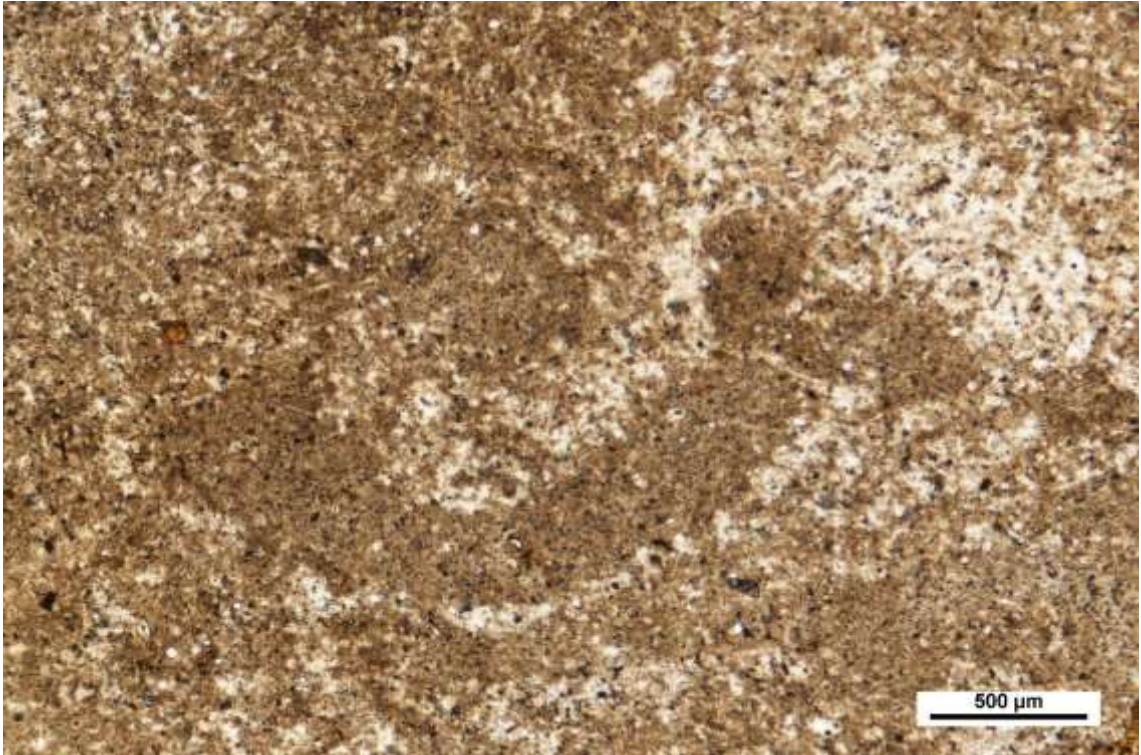
Photo ID	Aug.	Description
SP33_001	4x	General view of the chert, with the presence of dolomite minerals and unidentifiable fossils.
SP33_002	4x	Darker areas within the chert which create a pattern. May be a sedimentary structure.
SP33_003	4x	Fracture in the chert, filled with oxide patina.
SP33_004	2x	Fracture in the chert, filled with oxide patina.
SP33_005	10x	Detail of an unidentifiable fossil filled with chalcedony and dolomite grains.

Petrography photos



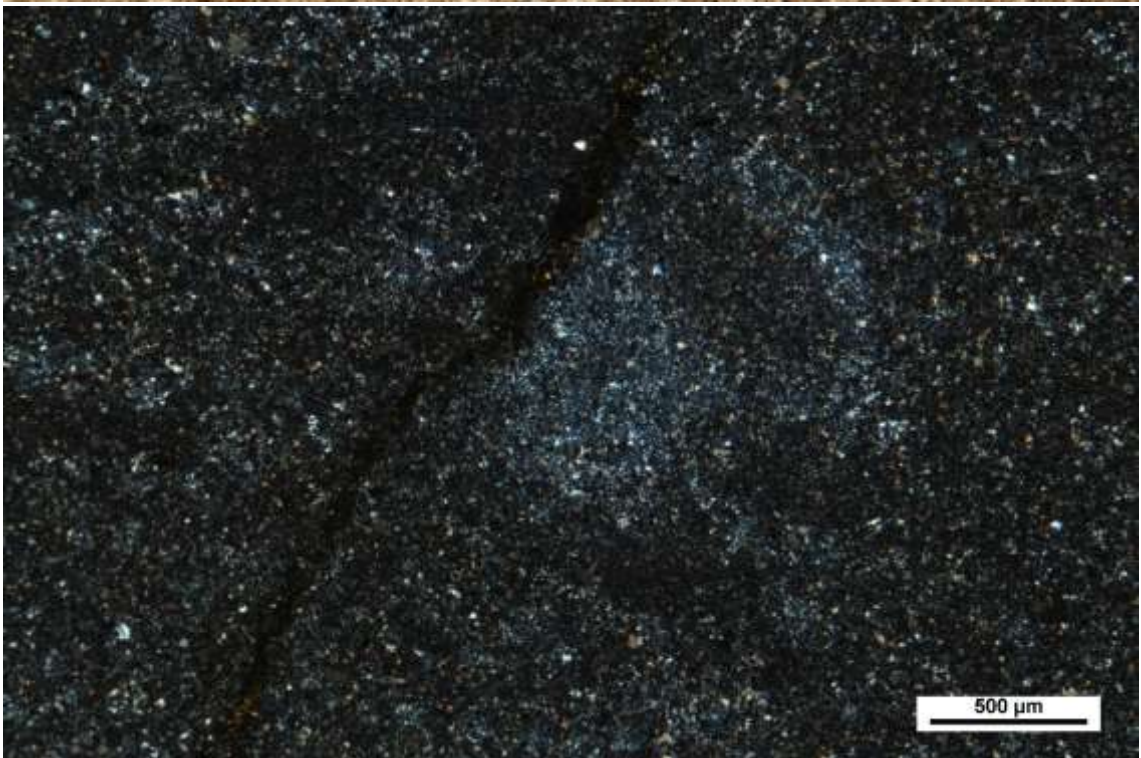
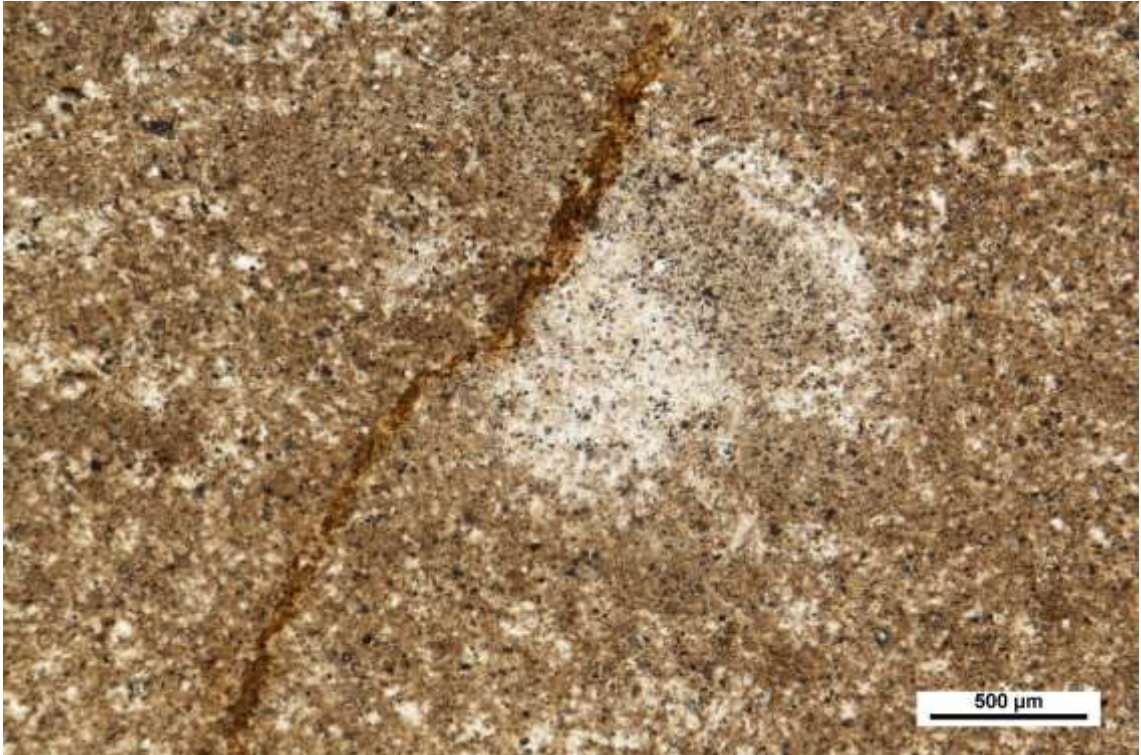
SP33\_FZF\_001 (PPL and XPL)





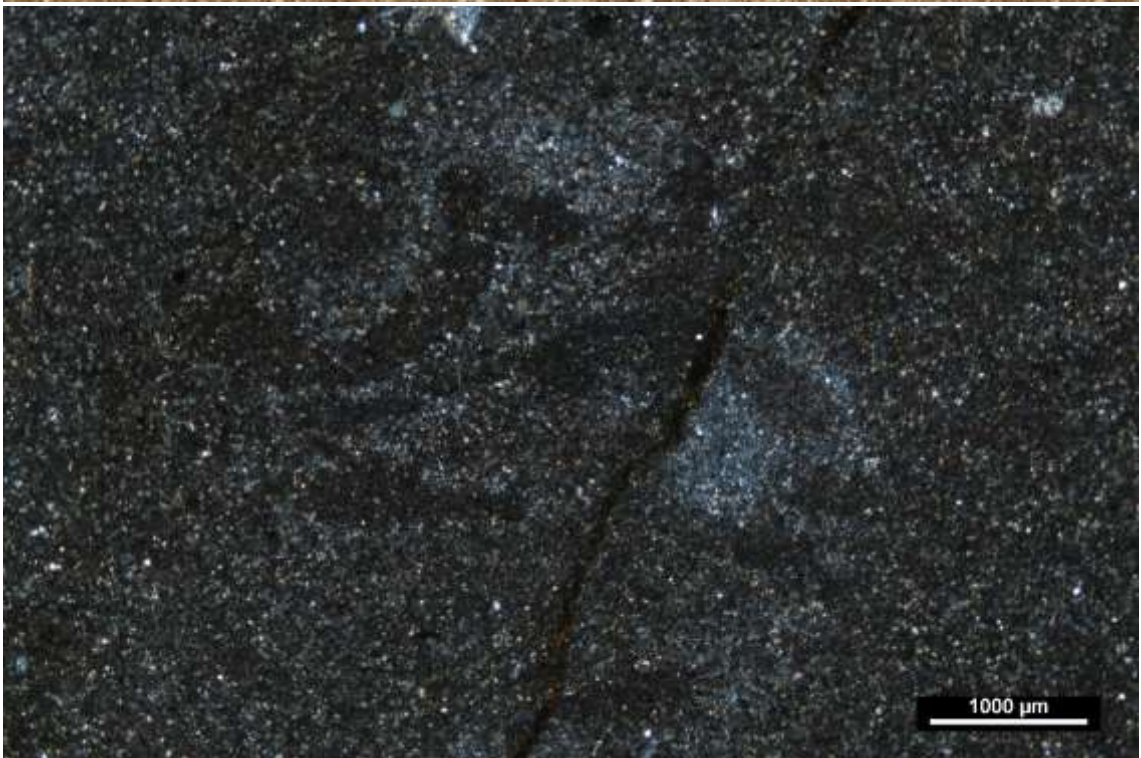
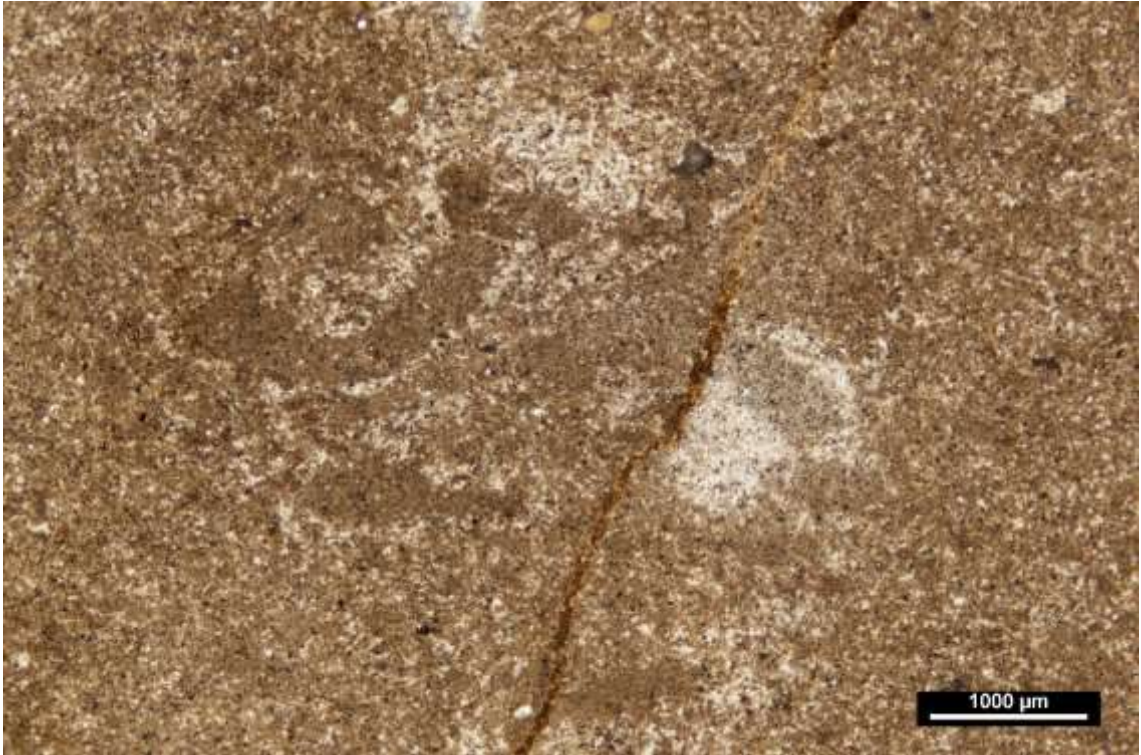
SP33\_FZF\_002 (PPL and XPL)





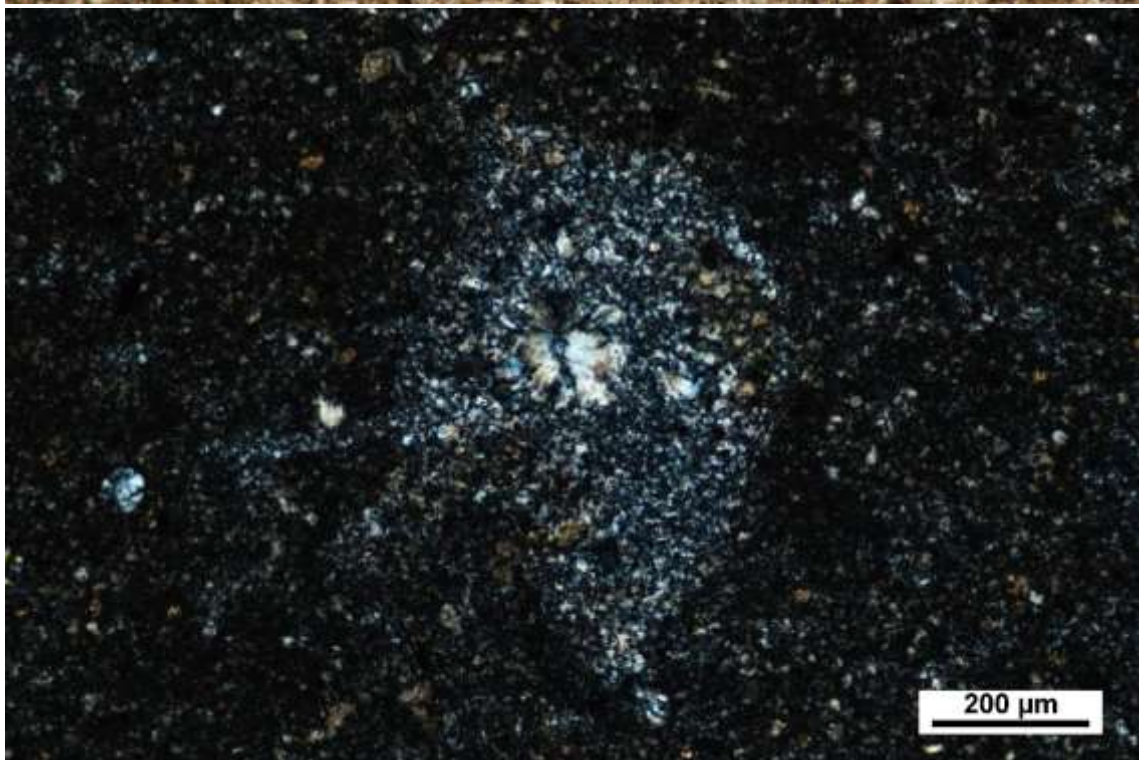
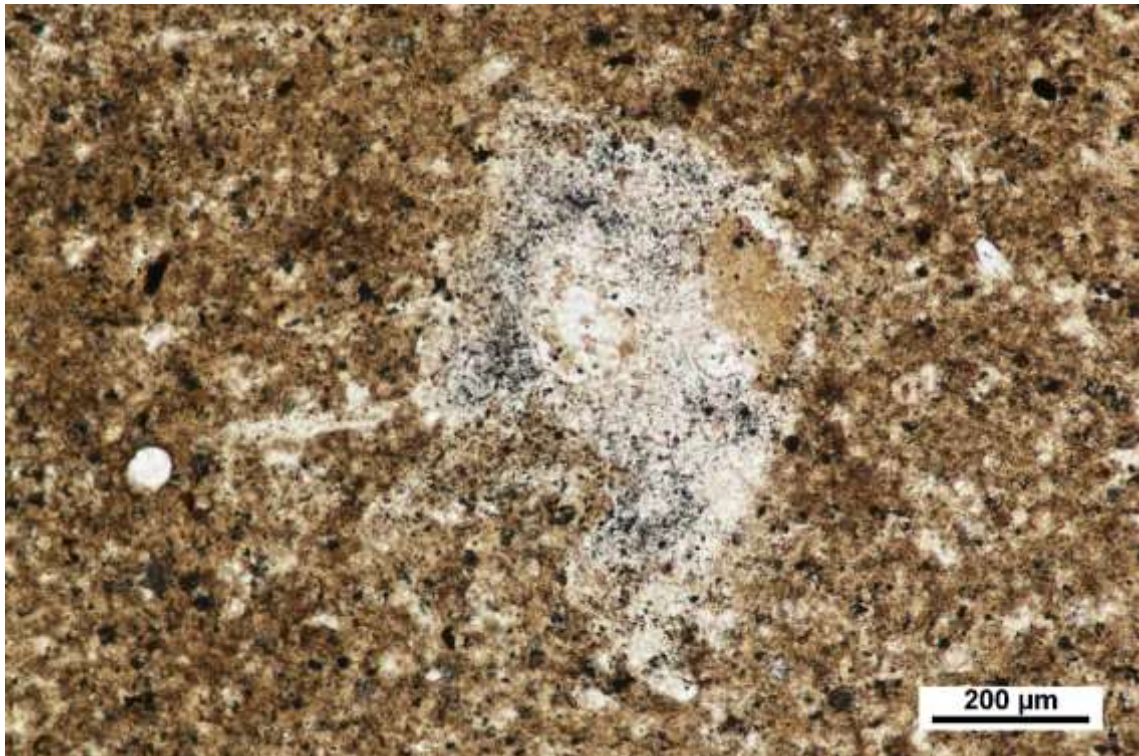
SP33\_FZF\_003 (PPL and XPL)





SP33\_FZF\_004 (PPL and XPL)





SP33\_FZF\_005 (PPL and XPL)

Macroscopic photos





