

**Petrographic Analysis of WEST OF BORDA GHONSA PARSODA (NMET) Block,**  
**WARDHA Valley CF**

**TEST REPORT: PETROGRAPHIC ANALYSIS**

**ERP PROJECT CODE: -EX-CM23-4EX15**

**JOB No.: NA**

**BLOCK: -WEST OF BORDA & GHONSA PARSODA**

**COALFIELD: -WARDHA VALLEY**

**WORK ORDER WITH DATE: RI-4/EXPLORATION/2024-25/WBGP NMET Paper/354 dated 04.12.2024**

**1. Pellet Preparation**

Five Petrographic Samples were prepared in pellet form as per IS 9127(Part 2)

**2. Maceral Analysis (with photomicrography)**

SL No.	B.H No.	DEPTH		NATURE OF SAMPLE	SAMPLE NO.	PELLET No.	Maceral Composition (%)				Maceral Composition (Vmmf%)		
		FROM	TO				Vit(%)	Lipt(%)	Int(%)	VMM(%)	Vit(%)	Lipt(%)	Int(%)
1	CMWWB-06	649.51	651.97	BCS/130	C1+D1+D2+C2+C3	17862	40.9	4.9	38.2	16.0	48.7	5.8	45.5
2		664.00	665.00	BCS/130	C4+C5+C6	17863	37.8	6.5	6.5	49.2	74.4	12.8	12.8
3	CMWWB-07	709.2	712.2	BCS/130	C1+C2+C3+C4+C5	17864	42.2	7.8	33.0	17.0	50.8	9.4	39.8
4		721.7	724.45	BCS/130	C6+C7+C8+C10+C11+C12+D2	17865	33.6	8.4	42.5	15.5	39.8	9.9	50.3
5		732.19	732.7	BCS/130	C13	17866	43.0	7.6	29.9	29.9	53.4	9.4	37.1

# PHOTOMICROGRAPHS OF MACERALS

(Magnification 500X under oil immersion objectives)

Pellet No.17862

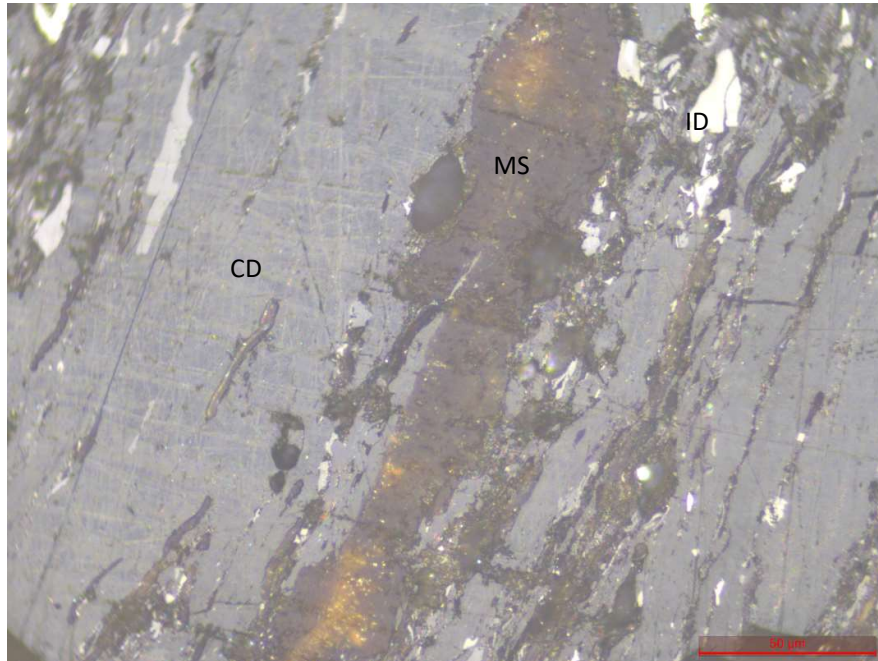


Fig.1: Megaspore (Liptinite maceral group) associated with Collodetrinite (Vitrinite maceral group) and Inertodetrinite (Inertinite Maceral group) under incident white light

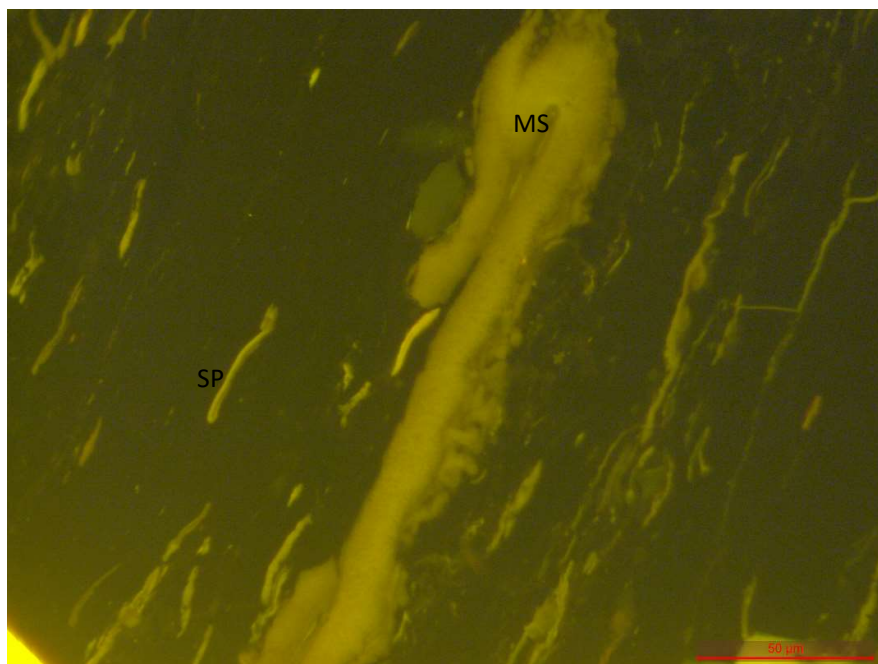


Fig.1A: Megaspore and Sporinite (Liptinite maceral group) showing yellow colour under fluorescent light.

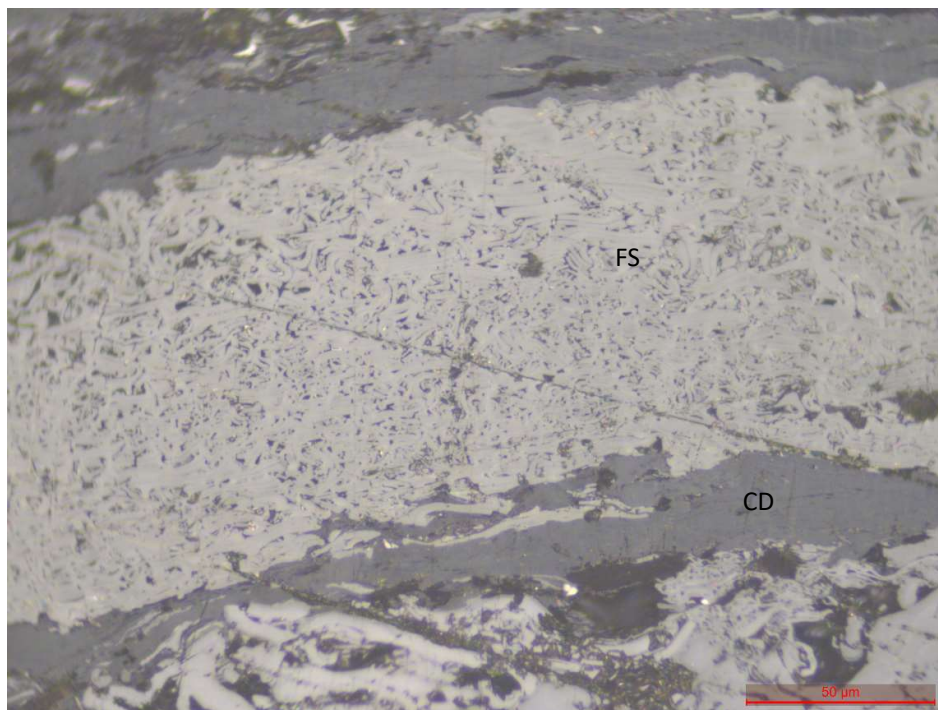


Fig.2: Fusinite (Inertinite Maceral group) and Collodetrinite (Vitrinite maceral group) under incident white light.

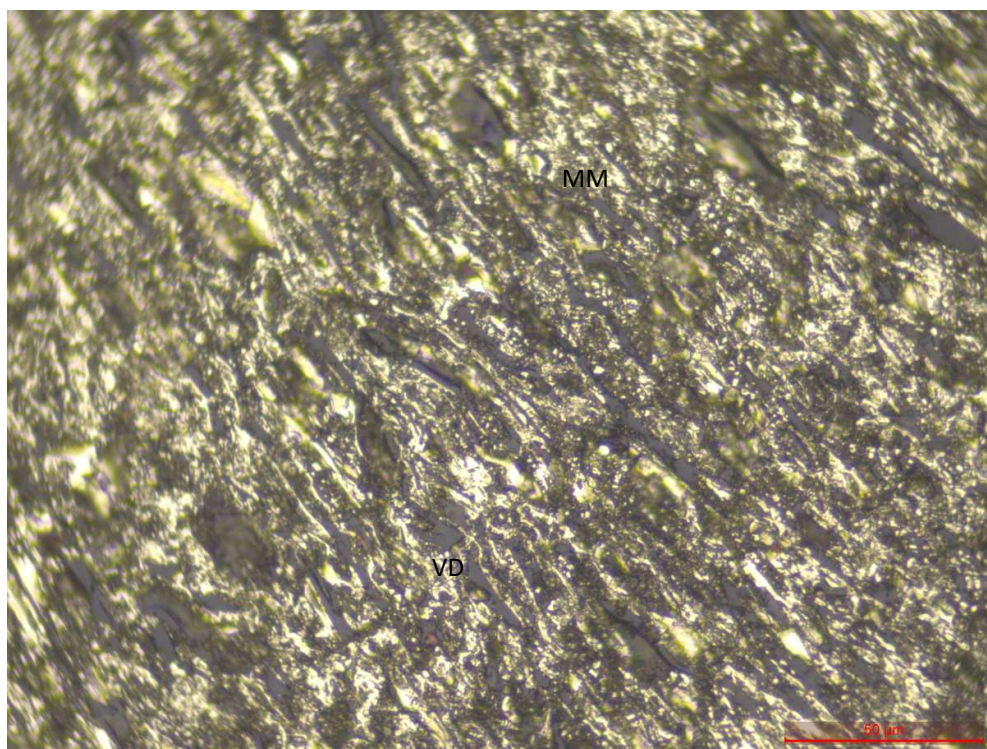


Fig.3: Mineral Matter in association with Vitrodetrinite (Vitrinite maceral group) under incident white light.



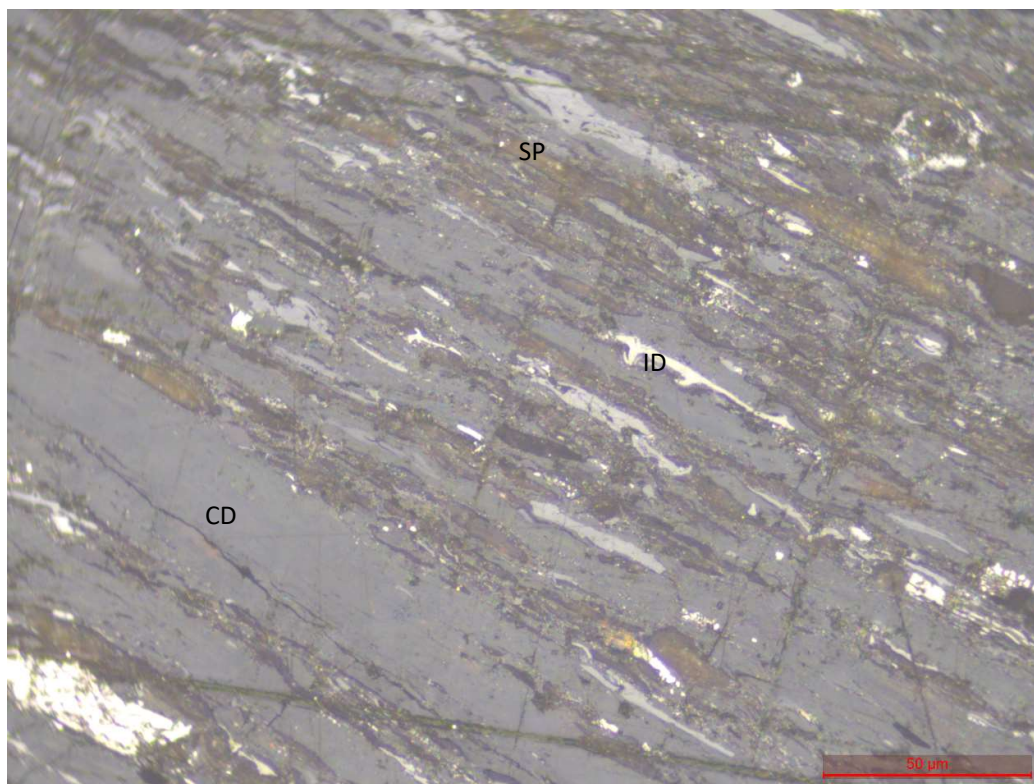


Fig.4: Sporinite (Liptinite maceral group) associated with Collodetrinite (Vitrinite maceral group) and Inertodetrinite (Inertinite Maceral group) under incident white light.

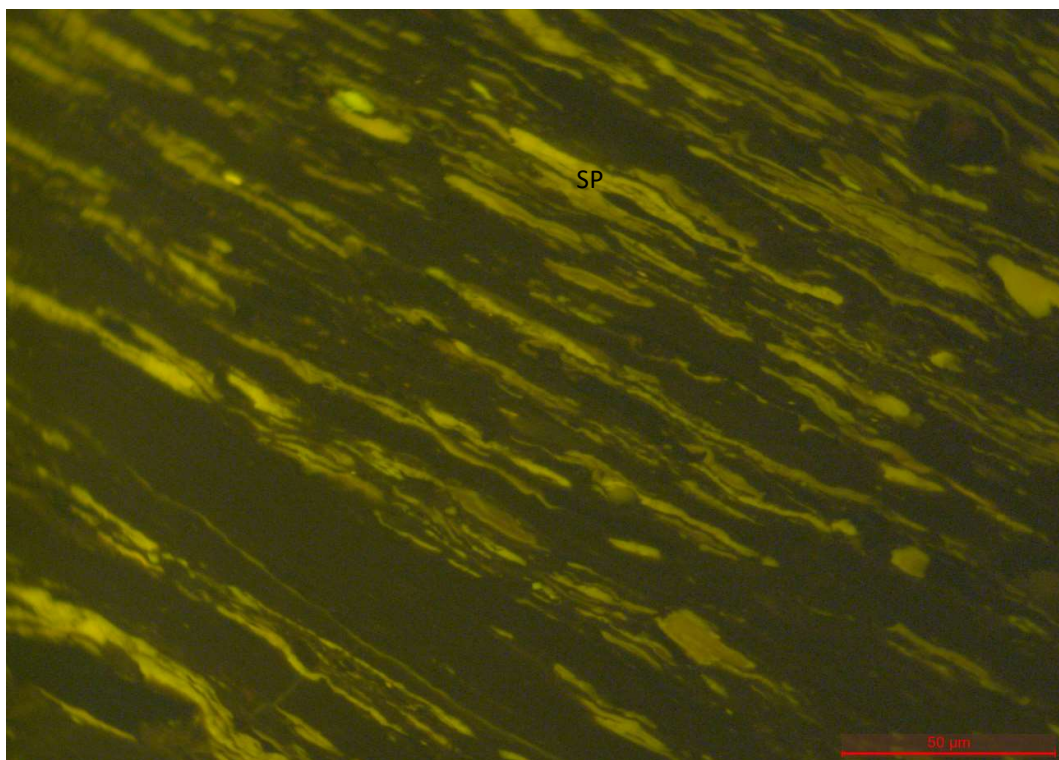


Fig.4A: Sporinite (Liptinite maceral group) showing yellow colour under fluorescent light.

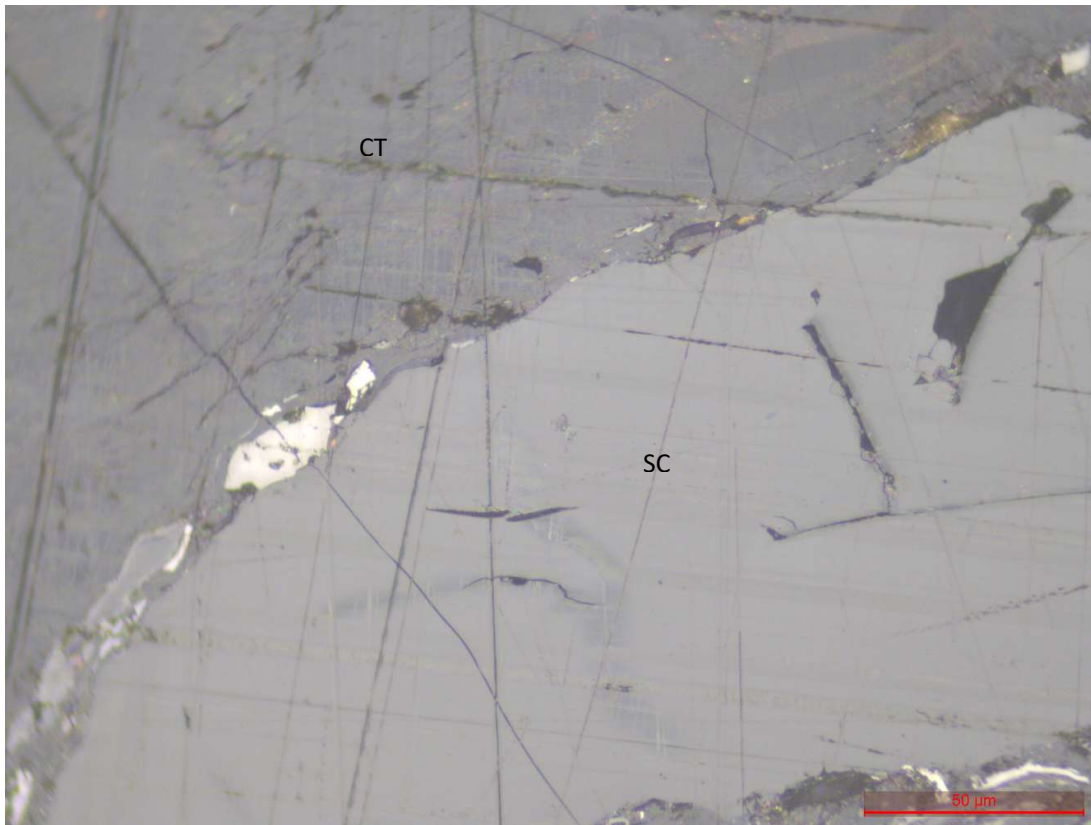


Fig.5- Collotelinite ( Vitrinite Maceral group) and Secretinite( Inertinite maceral Group) under incident white light.

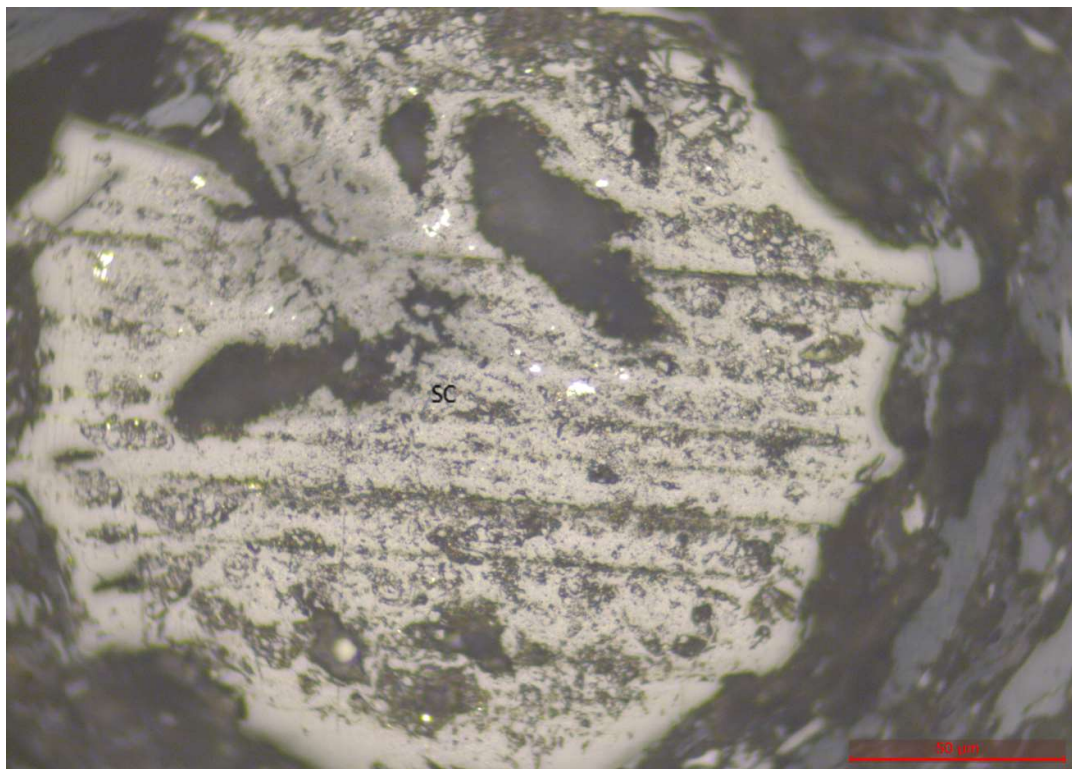


Fig.6 Secretinite (Inertinite maceral Group) under incident white light.



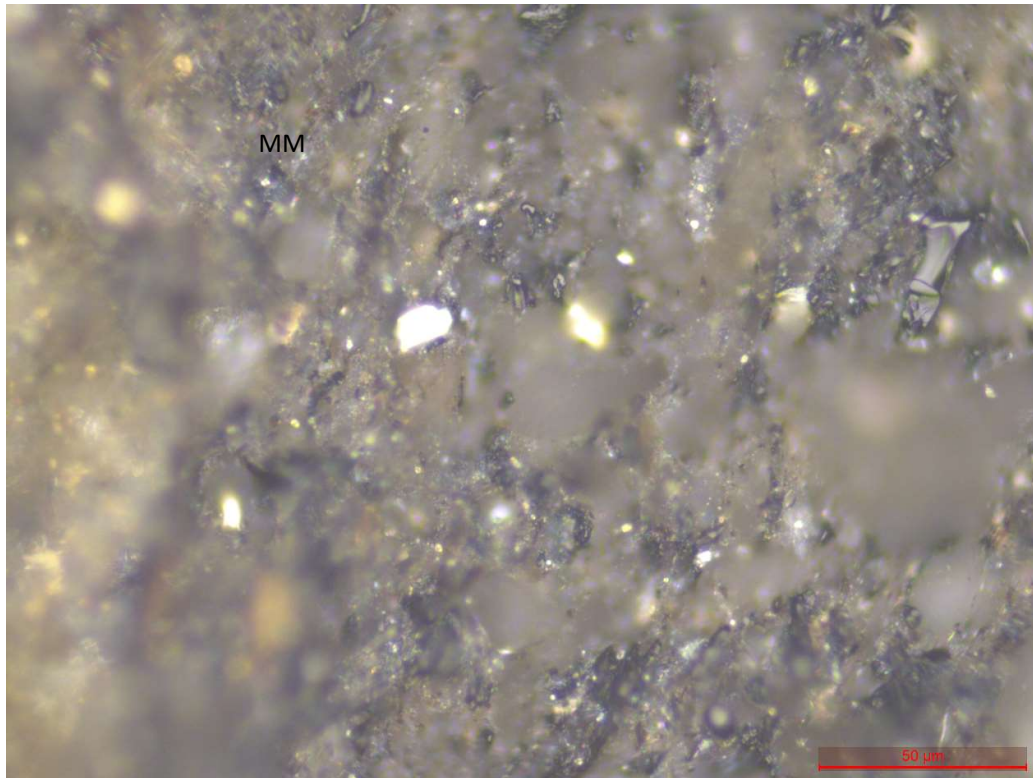
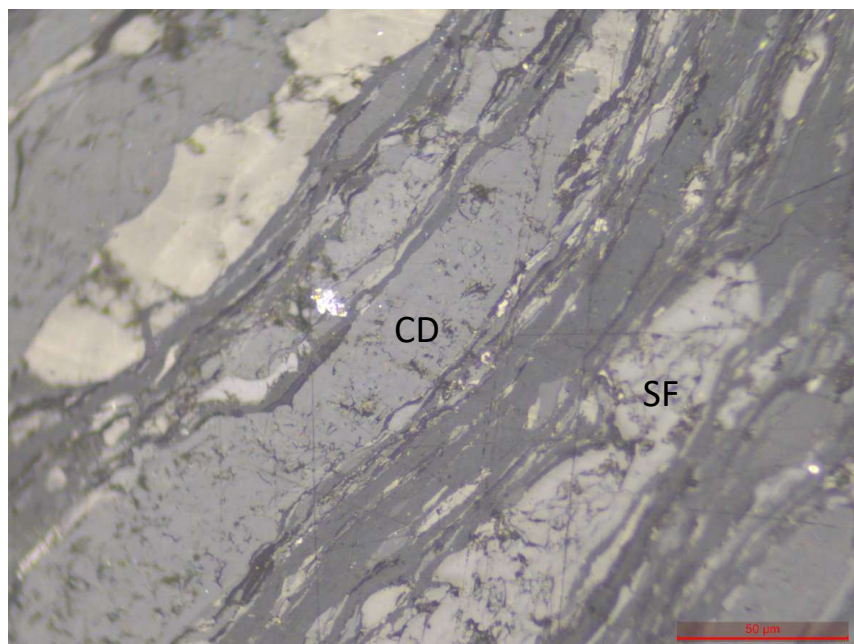


Fig.7 Mineral matter under incident white light

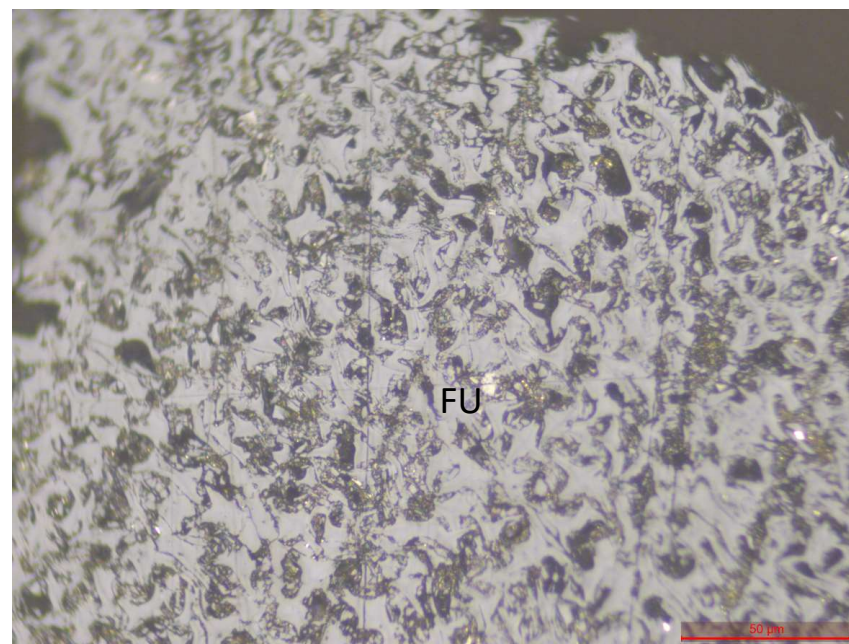


Fig.8: Collotelinite (Vitrinite Maceral group) under incident white light.

**Pellet No.17863**

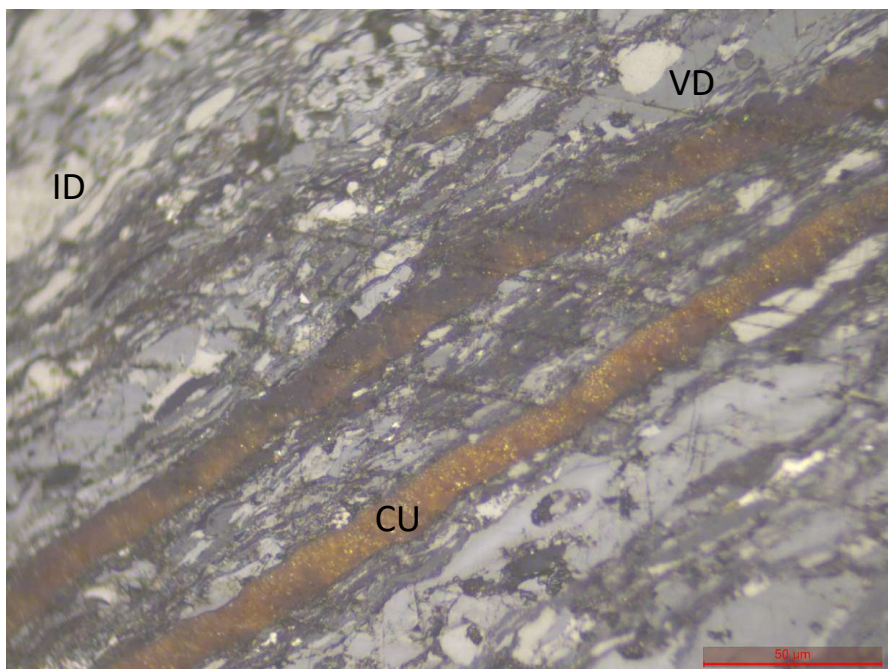


**Fig.1. Semifusinite (Inertinite Maceral Group) with Collodetrinite (Vitrinite maceral Group) under incident white light.**

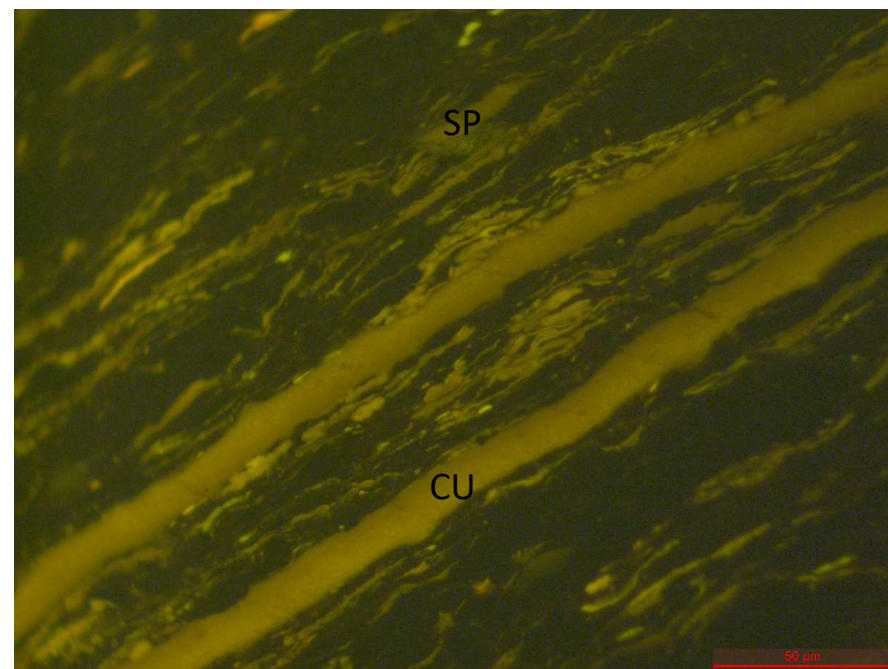


**Fig.2. Fusinite (Inertinite Maceral Group) under incident white light.**



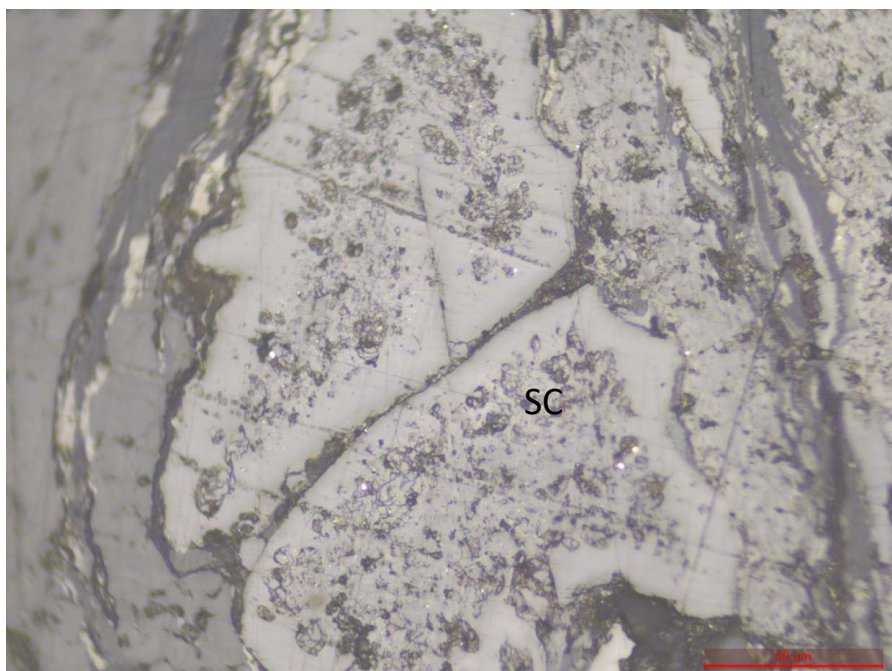


**Fig.3. Cutinite and Sporinite ( Liptinite Maceral Group) along with vitrodetrinite ( Vitrinite Maceral Group) and inertodetrinite ( Inertinite Maceral Group) Under Incident white light.**

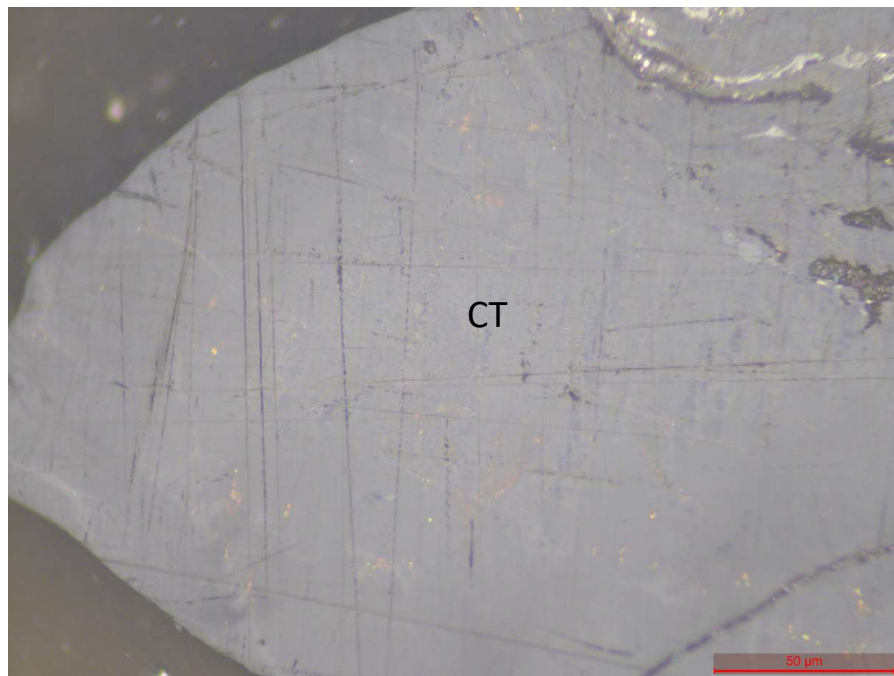


**Fig.3A. Cutinite and Sporinite ( Liptinite Maceral Group) showing yellow colour Under Fluorescent light.**

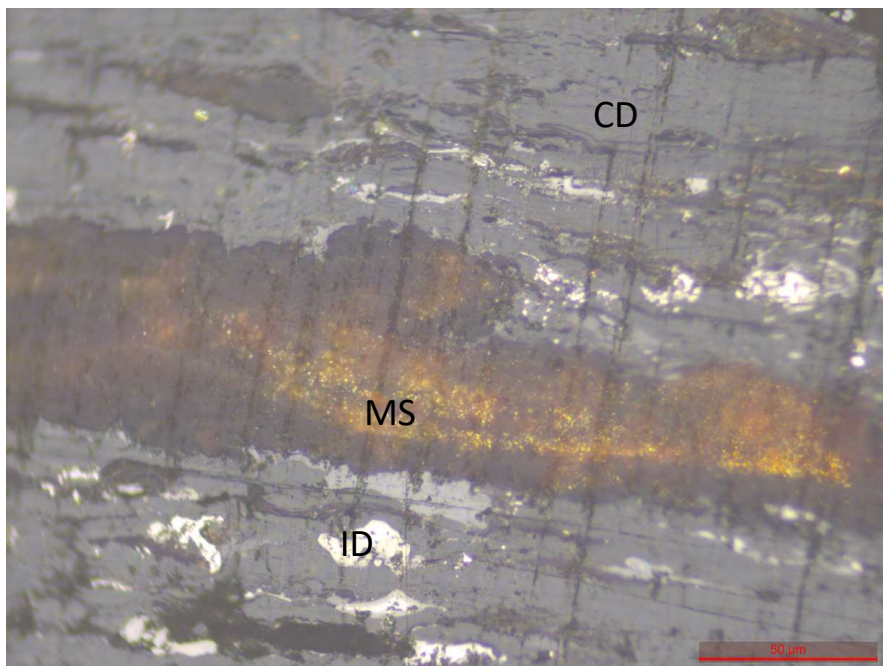




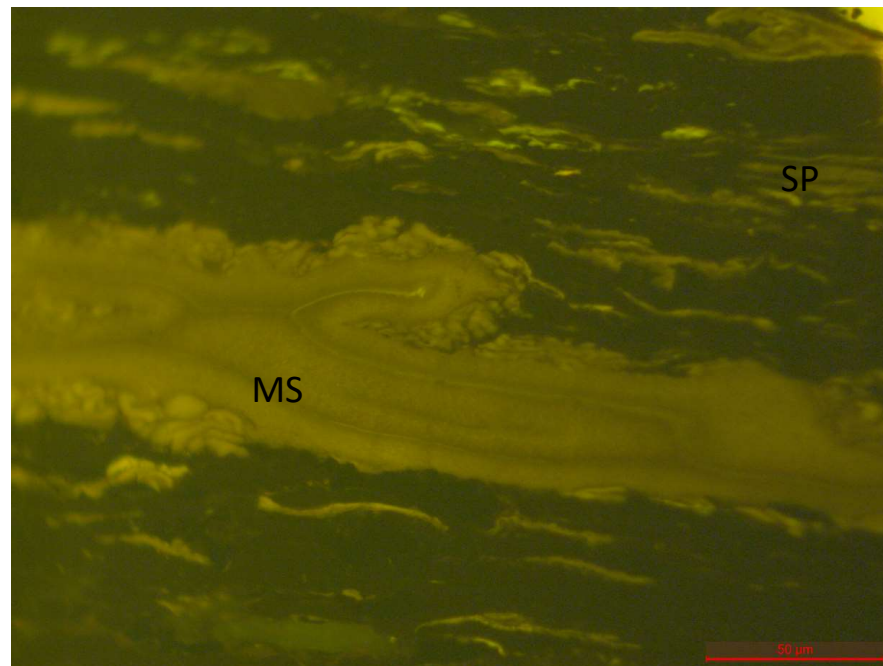
**Fig.4. Secretenite ( Inertinite Maceral Group) under incident white light.**



**Fig.5. Collotellinite ( Vitrinite Maceral Group) under incident Light.**

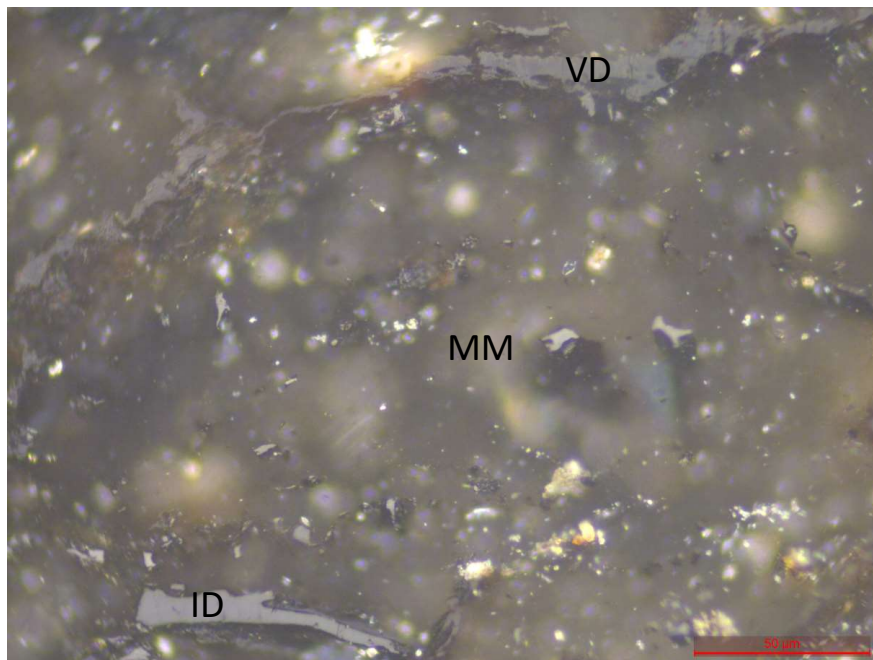


**Fig.6. Megaspore and Sporinite( Liptinite Maceral Group) associated with Collodetrinite( Vitrinite Maceral Group) and Inertodetrinite( Inertinite Maceral Group) under incident white light.**



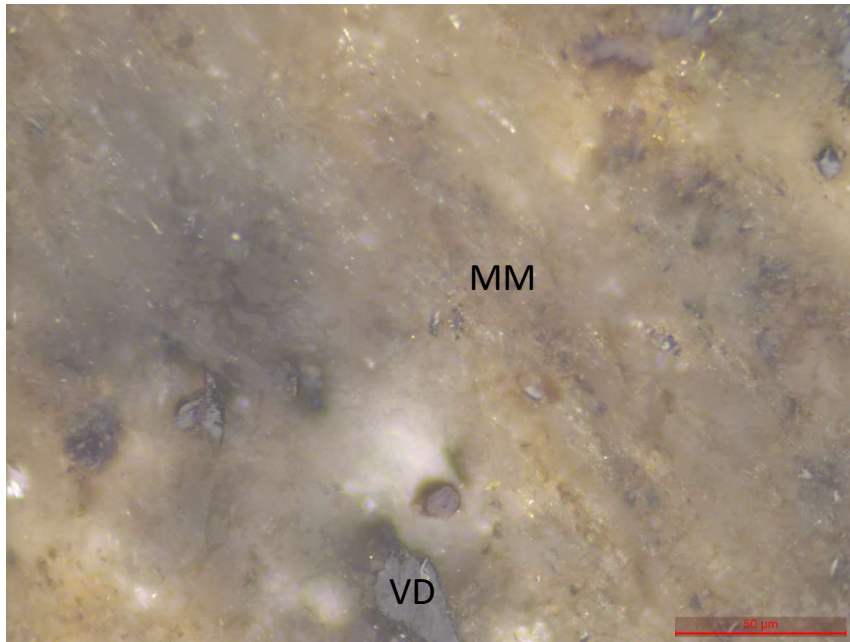
**Fig.6A. Megaspore and Sporinite( Liptinite Maceral Group) showing yellow colour under Fluorescent light.**



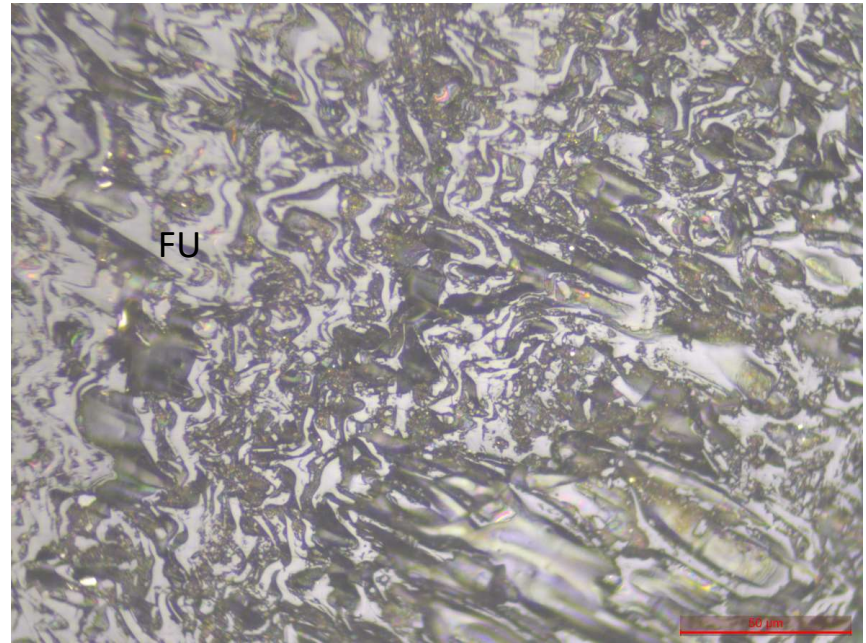


**Fig.7. Vitrodetrinite( Vitrinite Maceral Group) and Inertodetrinite ( Inertinite Maceral Group) in groundmass of mineral matter.**

**Pellet No.17864**

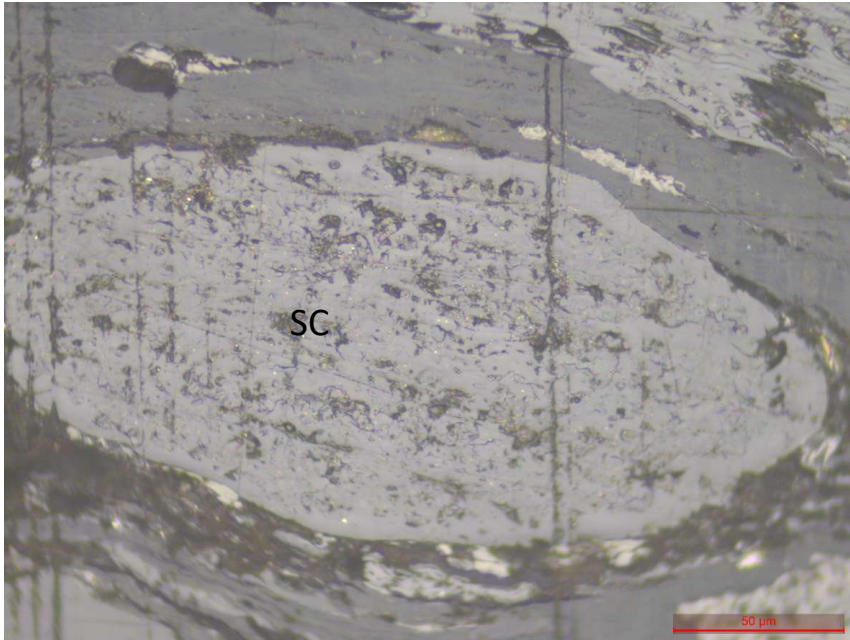


**Fig.1. Vitrodetrinite( Vitrinite Maceral Group) in groundmass of mineral matter.**

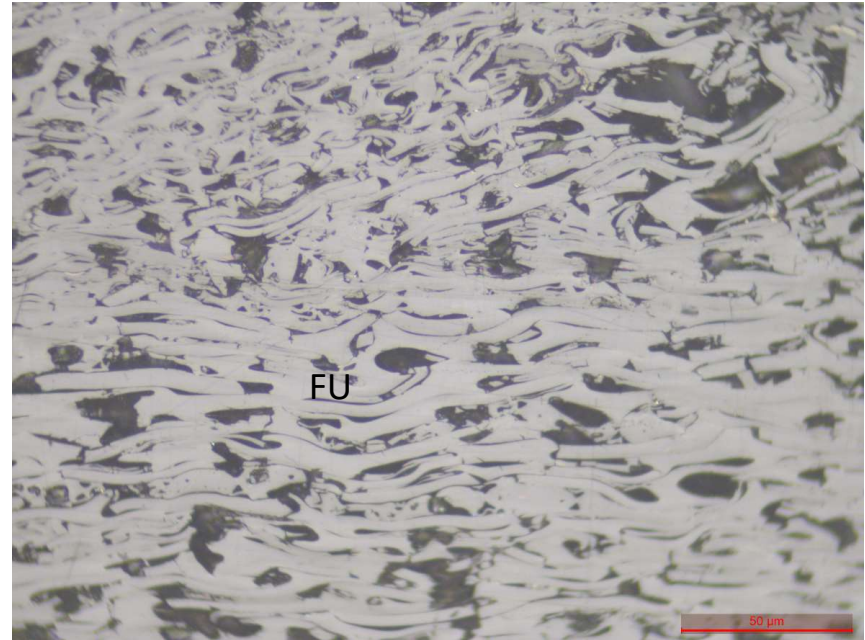


**Fig.2. Fusinite( Inertinite Maceral Group) under incident white light**

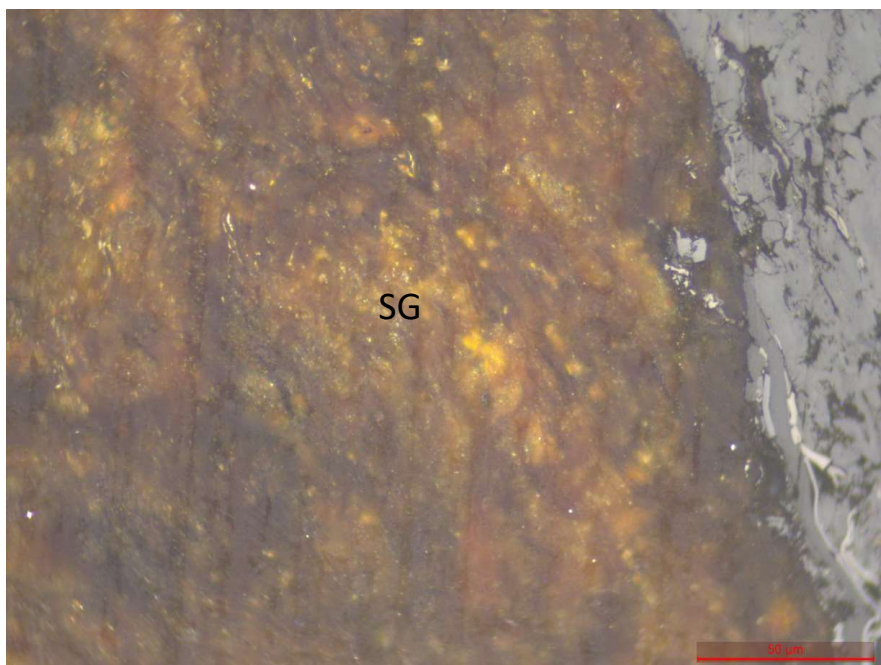




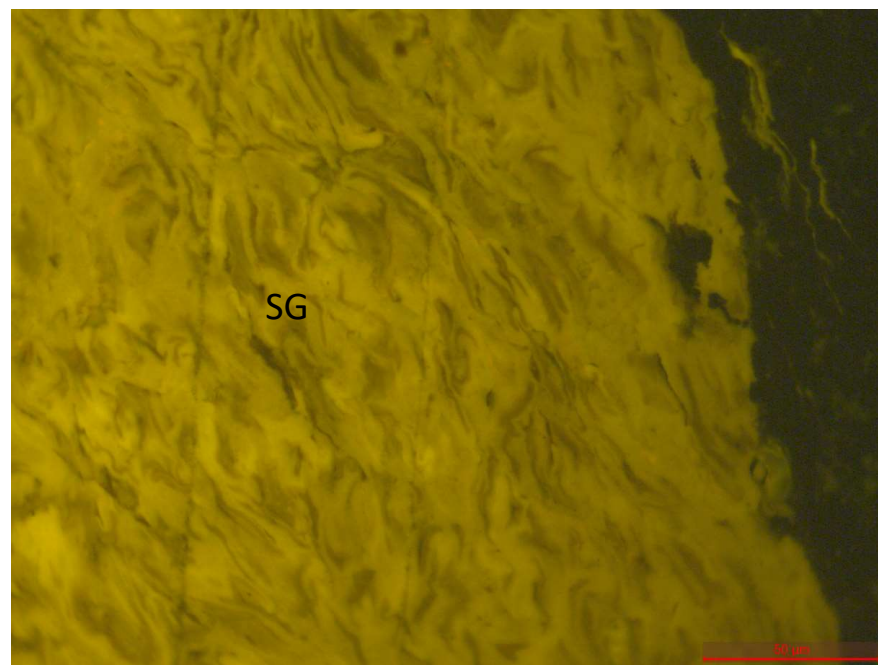
**Fig.3. Secretenite( Inertinite Maceral Group) under incident white light.**



**Fig.4. Fusinite( Inertinite Maceral Group) under incident white light**

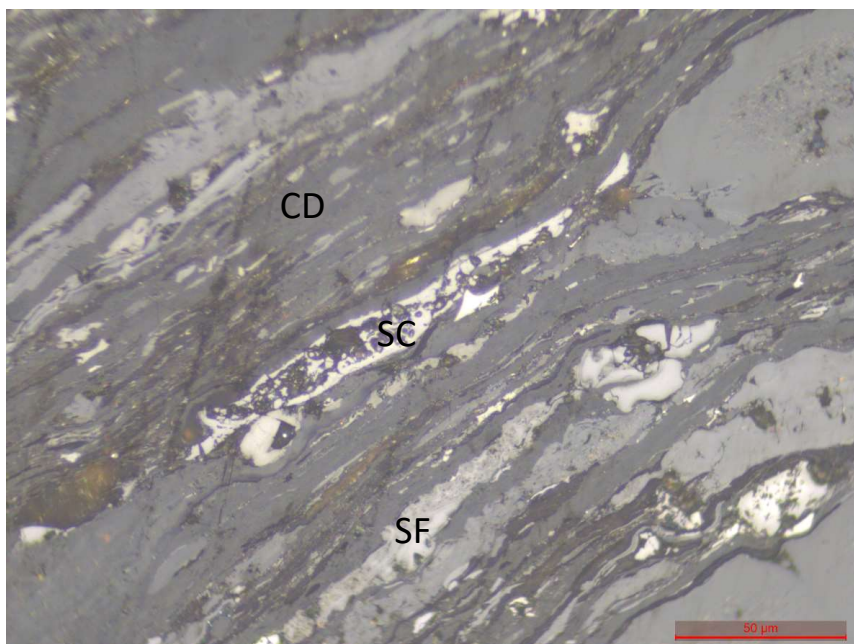


**Fig.5. Sporangium( Liptinite Maceral Group) under incident white light**

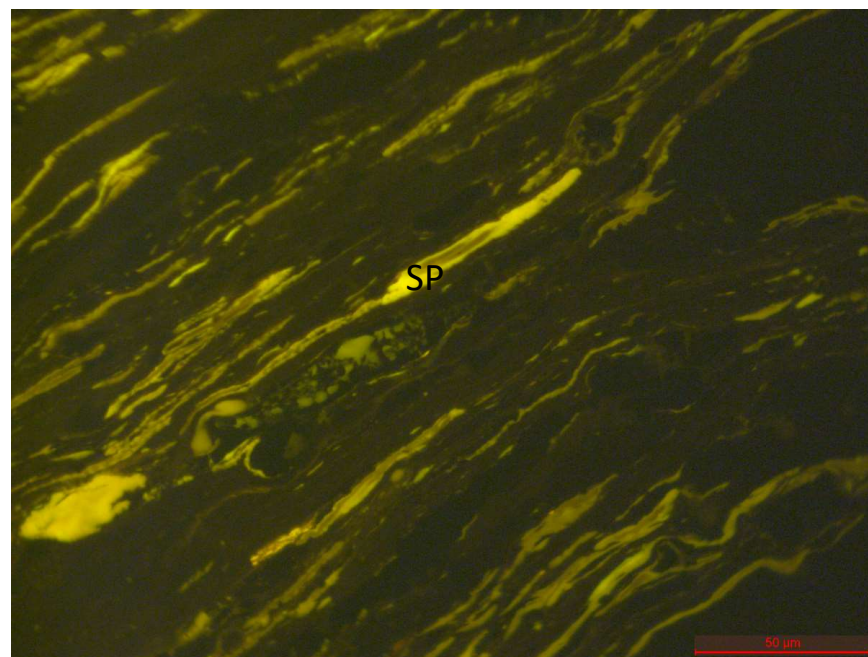


**Fig.5A. Sporangium( Liptinite Maceral Group) showing yellow colour under Fluorescent light .**

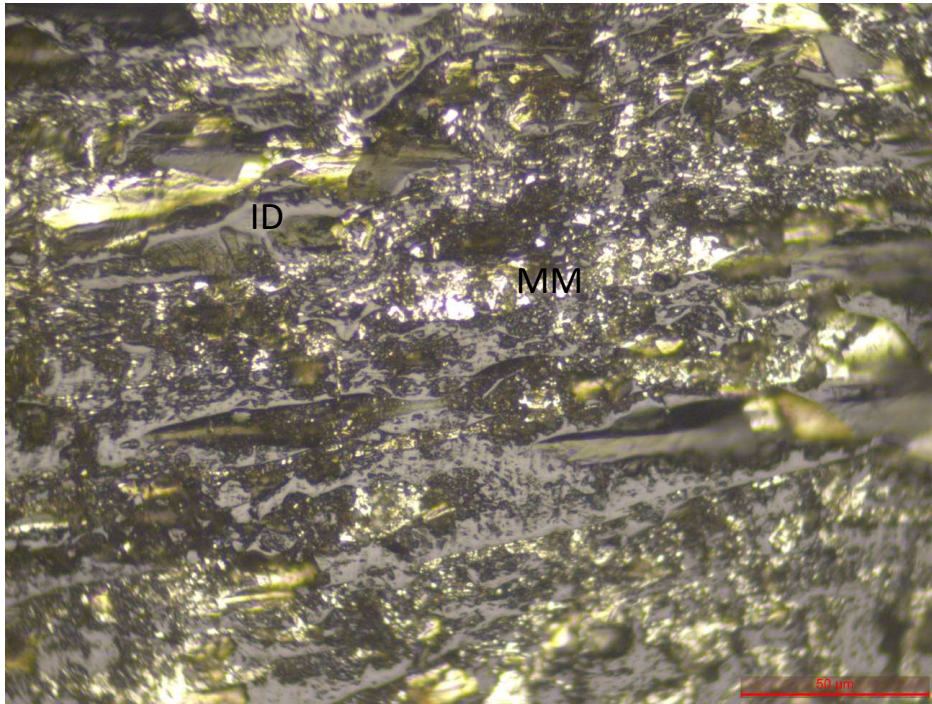




**Fig.6. Semifusinite and Secretinite ( Inertinite Maceral Group) with Collodetrinite( Vitrinite Maceral Group) under incident white light.**



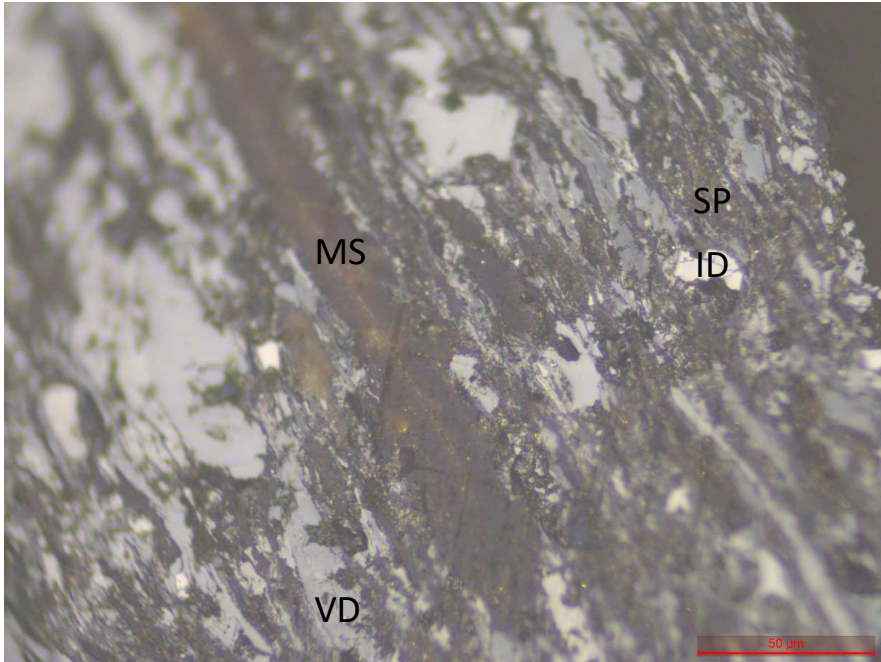
**Fig.6A. Sporinite( Liptinite Maceral Group) showing yellow colour under fluorescent light**



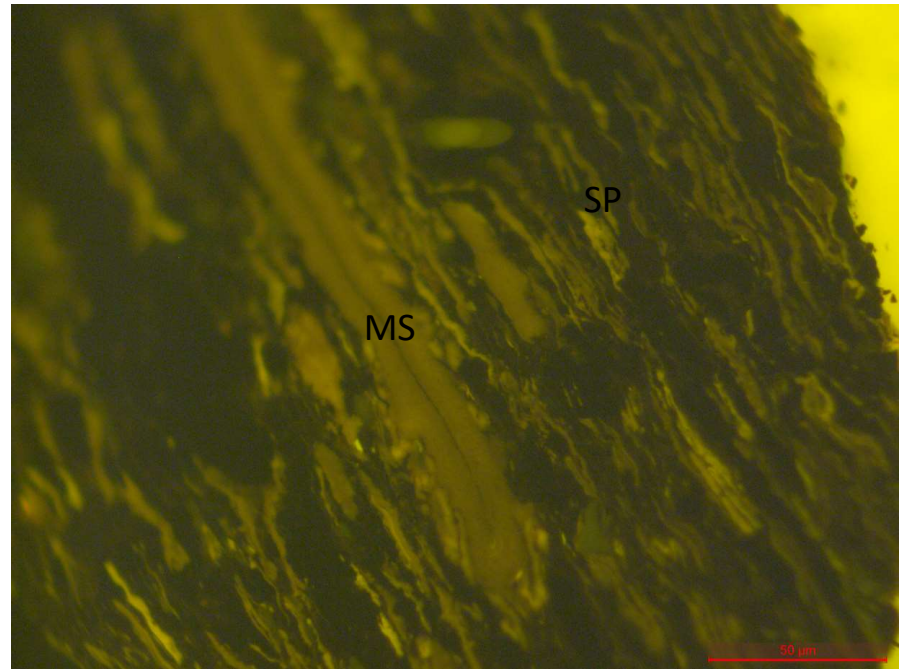
**Fig.7. Inertodetrinite ( Inertinite Maceral Group) in groundmass of mineral matter.**



**Pellet No.17865**



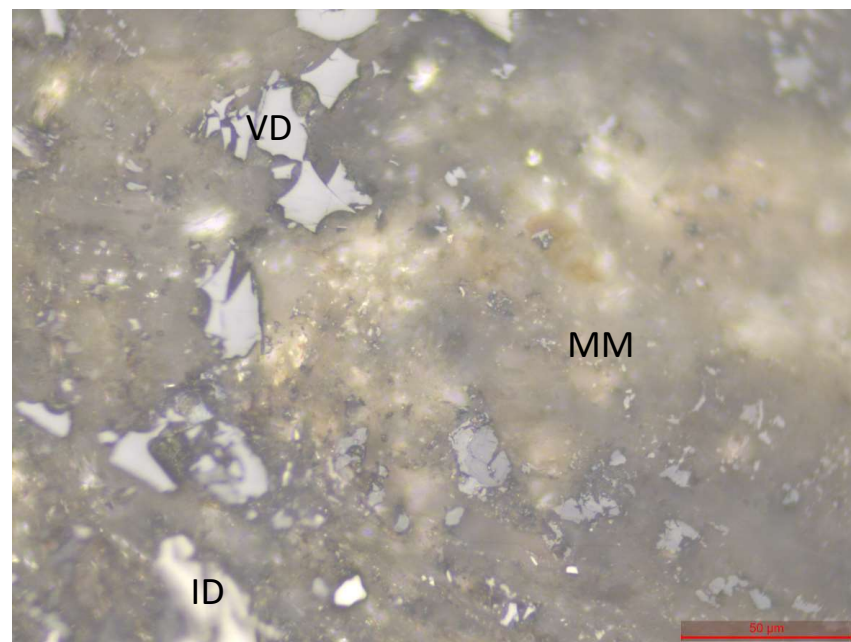
**Fig.1. Megaspore and Sporinite( Liptinite Maceral Group) associated with Vitrodetrinite( Vitrinite Maceral Group) and Inertodetrinite( Inertinite Maceral Group) under incident white light.**



**Fig.1A. Megaspore and Sporinite( Liptinite Maceral group) showing yellow colour under fluorescent light.**

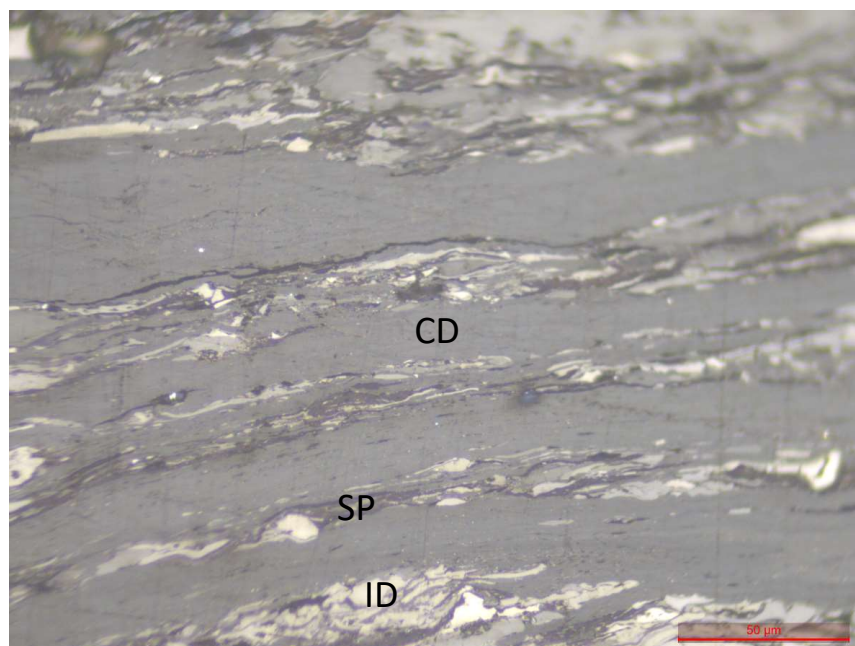


**Fig.2. Collotelinite( Vitrinite Maceral Group) under incident Light.**

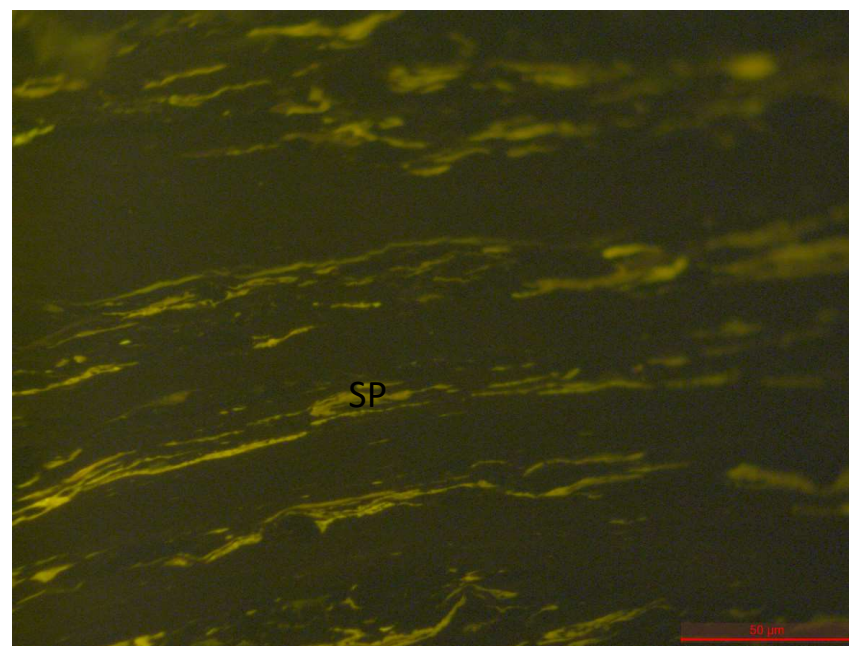


**Fig.3. Vitrodetrinite( Vitrinite Maceral Group) and inertodetrinite ( Inertinite Maceral Group) in groundmass of mineral matter.**

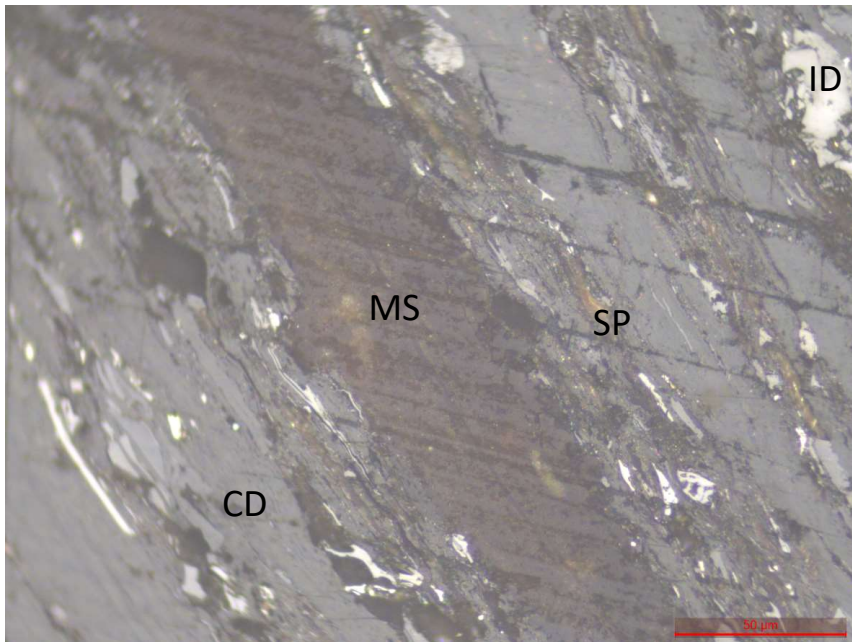




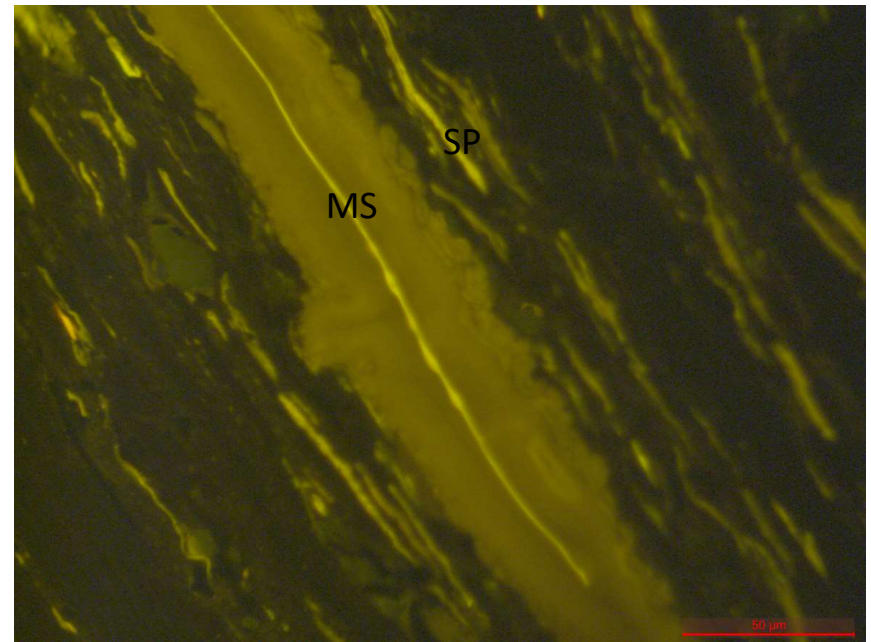
**Fig.4. Sporinite( Liptinite Maceral Group) associated with Collodetrinite ( Vitrinite Maceral Group) and Inertodetrinite( Inertinite Maceral Group) under incident white light.**



**Fig.4A. Sporinite( Liptinite Maceral Group) showing yellow colour under fluorescent light.**



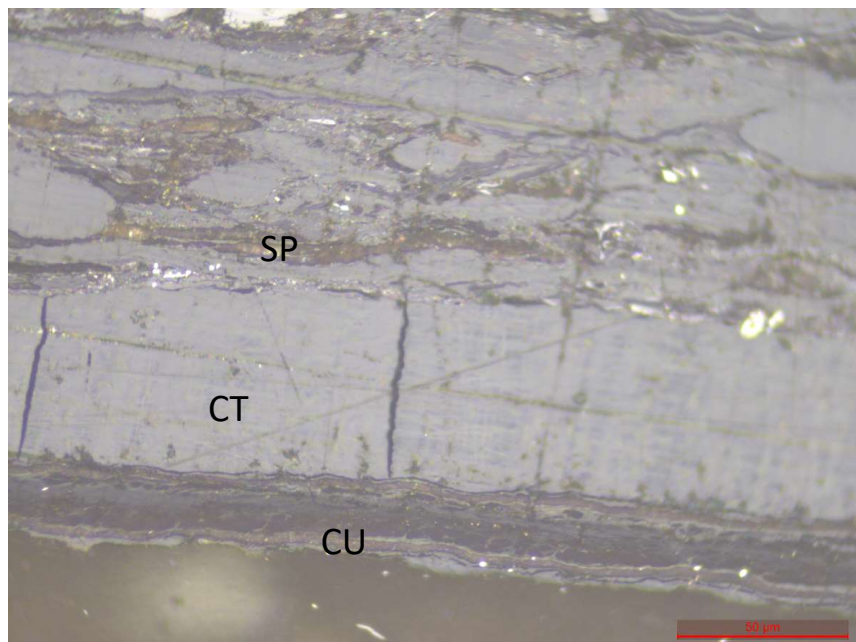
**Fig.5. Megaspore and Sporinite( Liptinite Maceral Group) associated with Collodetrinite( Vitrinite maceral Group) and Inertodetrinite( Inertinite Maceral Group) under incident white light.**



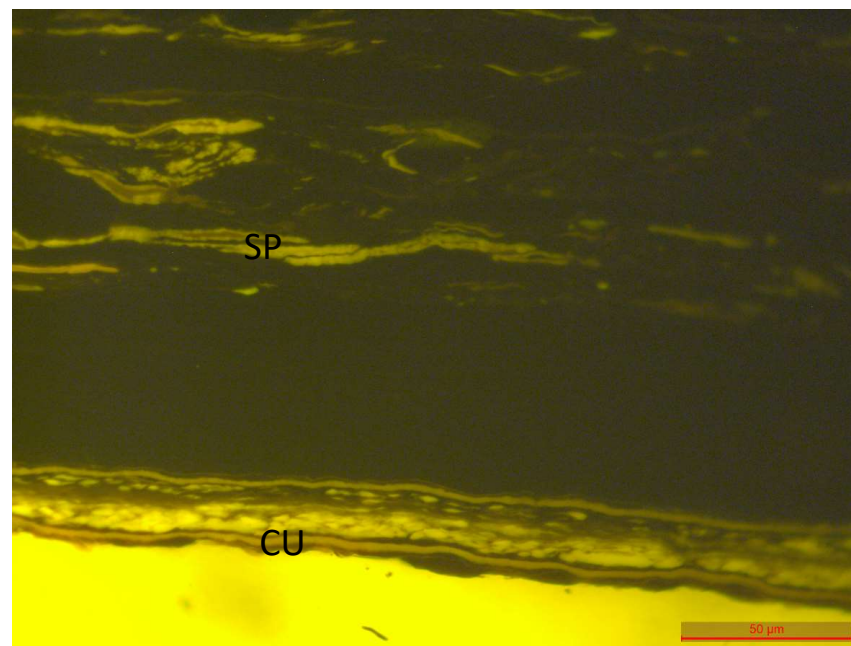
**Fig.5A. Megaspore and Sporinite( Liptinite Maceral Group) showing yellow colour under fluorescent light.**



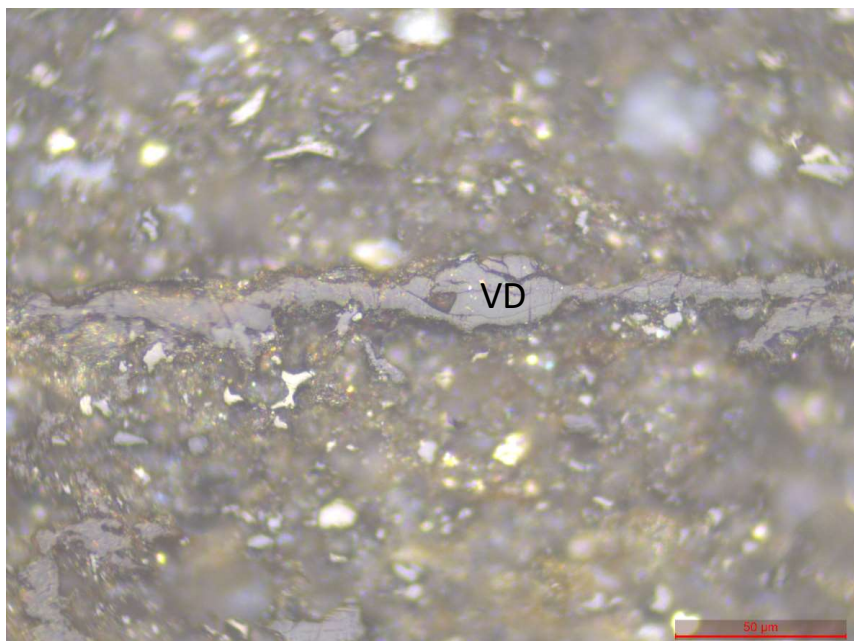
**Pellet No.17866**



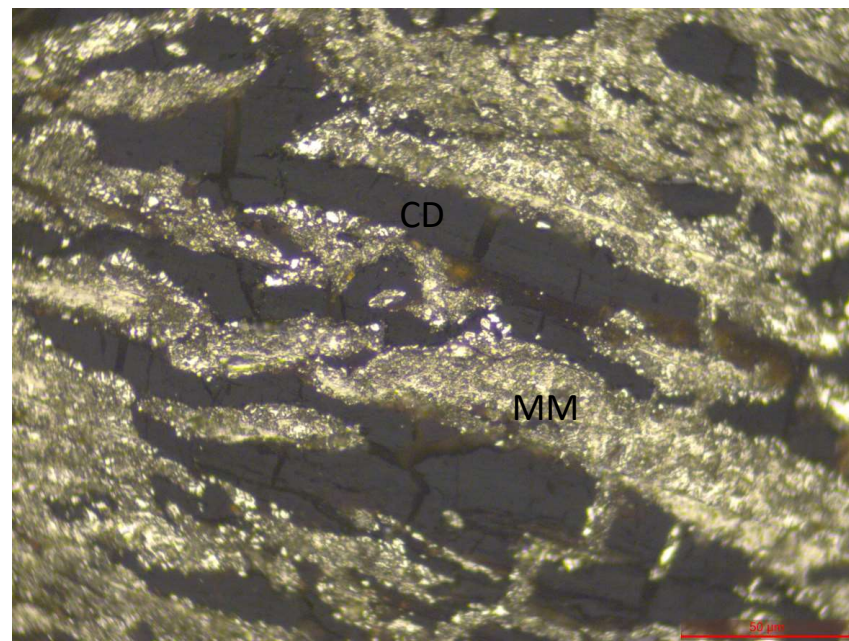
**Fig.1. Cutinite and Sporinite( Liptinite Maceral Group) associated with Collotelinite( Vitrinite Maceral Group) under incident white light.**



**Fig.1A. Cutinite and Sporinite( Liptinite Maceral Group) showing yellow colour under fluorescent light.**

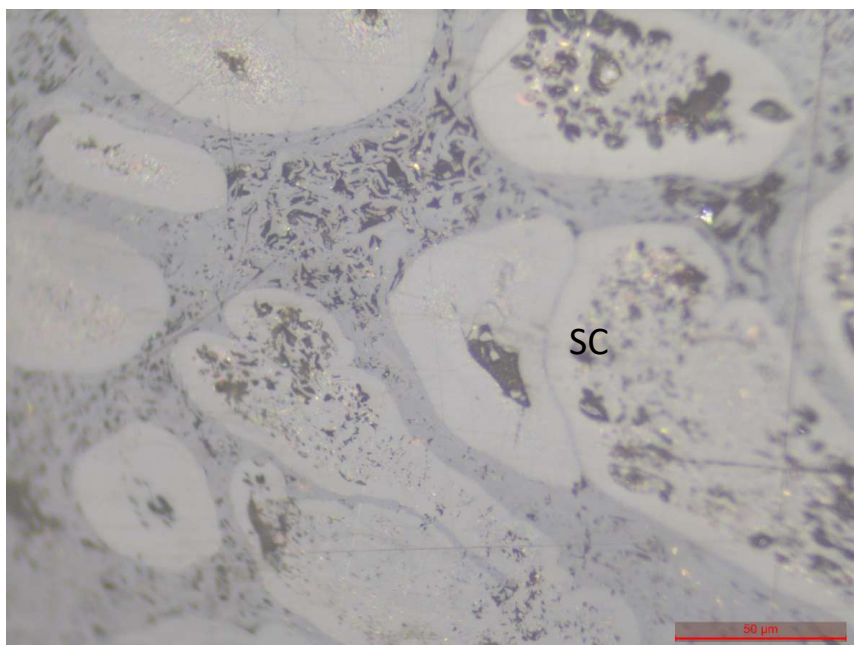


**Fig.2. Vitrodetrinite ( Vitrinite Maceral Group) in groundmass of mineral matter under incident Light.**

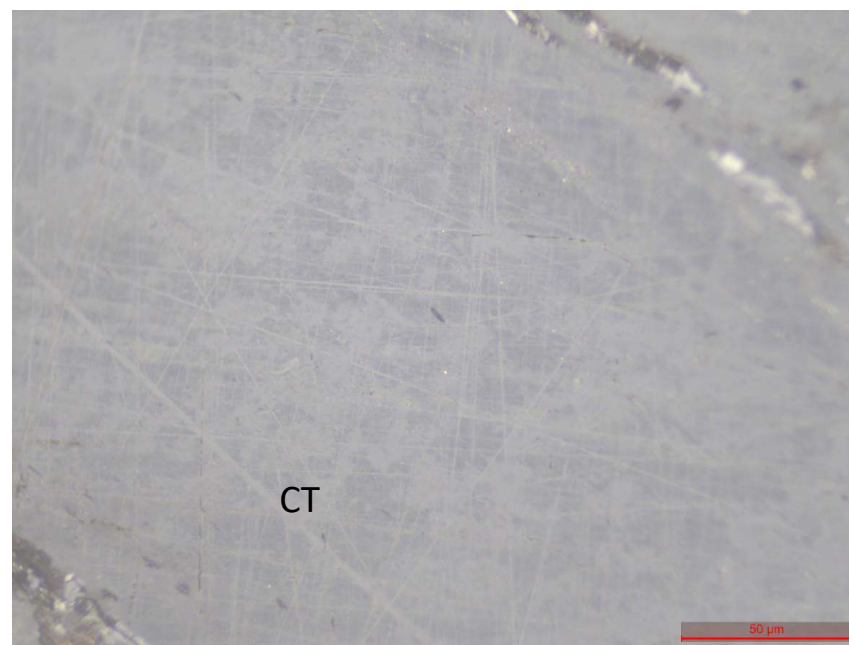


**Fig.3. Collodetrinite( Vitrinite Maceral Group) ) in groundmass of mineral matter under incident Light.**

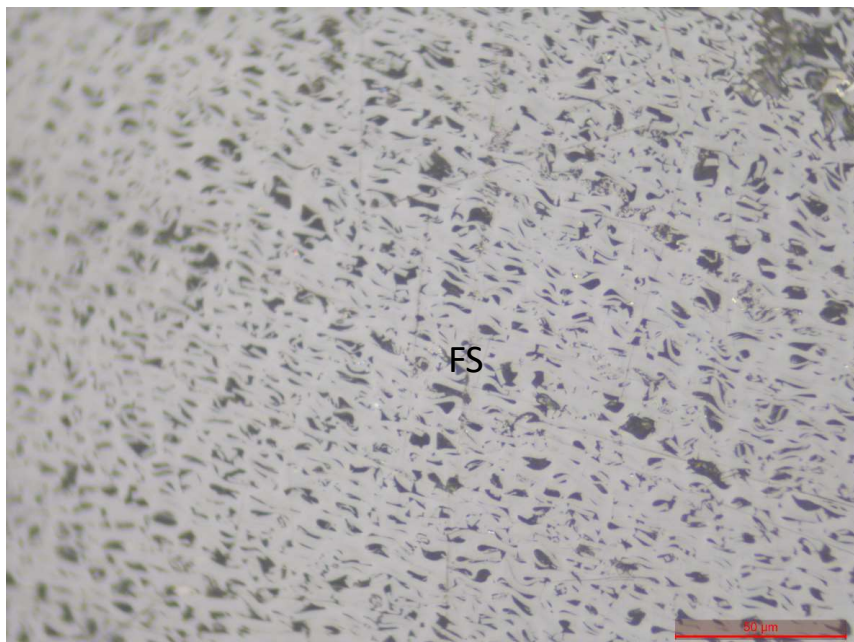




**Fig.4. Secretenite( Inertinite Maceral Group) under incident white light.**



**Fig.5. Collotellinite ( Vitrinite Maceral Group) under incident Light.**



**Fig.6. Fusinite( Inertinite Maceral Group) under incident white light**



**Fig.7. Collotelinite( Vitrinite Maceral Group) under incident Light.**



### 3.Microlithotype Analysis (with photomicrography)

NA

### 4.Mean Ro%

SL No.	B.H No.	DEPTH		NATURE OF SAMPLE	SAMPLE No.	PELLET No.	Ro%
		FROM	TO				
1	CMWWB-06	649.51	651.97	BCS/130	C1+D1+D2+C2+C3	17862	0.48
2		664.00	665.00	BCS/130	C4+C5+C6	17863	0.49
3	CMWWB-07	709.2	712.2	BCS/130	C1+C2+C3+C4+C5	17864	0.48
4		721.7	724.45	BCS/130	C6+C7+C8+C10+C11+C12+D2	17865	0.48
5		732.19	732.7	BCS/130	C13	17866	0.49

### NOTE:

#### • Abbreviation

- |    |      |                                   |
|----|------|-----------------------------------|
| 1  | VD   | vitrodetrinite                    |
| 2  | CT   | Collotellinite                    |
| 3  | CD   | Collodetrinite                    |
| 4  | CU   | Cutinite                          |
| 5  | SP   | Sporinite                         |
| 6  | MS   | Megaspore                         |
| 7  | SG   | Sporangium                        |
| 8  | ID   | Inertodetrinite                   |
| 9  | SF   | Semifusinite                      |
| 10 | FU   | Fusinite                          |
| 11 | ST   | Secretenite                       |
| 12 | MM   | Mineral Matter                    |
| 13 | Vit  | Vitrinite                         |
| 14 | Lipt | Liptinite                         |
| 15 | Int  | Inertinite                        |
| 16 | VMM  | Visible Mineral Matter            |
| 17 | Vmmf | Visible Mineral Matter Free Basis |
| 18 | Ro   | Mean Random Vitrinite Reflectance |

- Analysis carried out as per IS 9127 (part2) 2014, (part3) 2002 & (part5)2010
- CC Lab will not retain samples after a period of three months from receipt of results at your end.

CHECKED BY: Elizabeth Kongari  
Dy. Manager(Geology)

*Elizabeth Kongari*  
20-12-2024

*Dy. Manager*  
20.12.2024  
AUTHORISED  
SIGNATORY

END OF RESULTS