

Supporting Information

Doped-MXene Assists in Deciphering Metabolic Signature of Psoriasis and Unraveling Dysregulated Leukotriene Metabolism

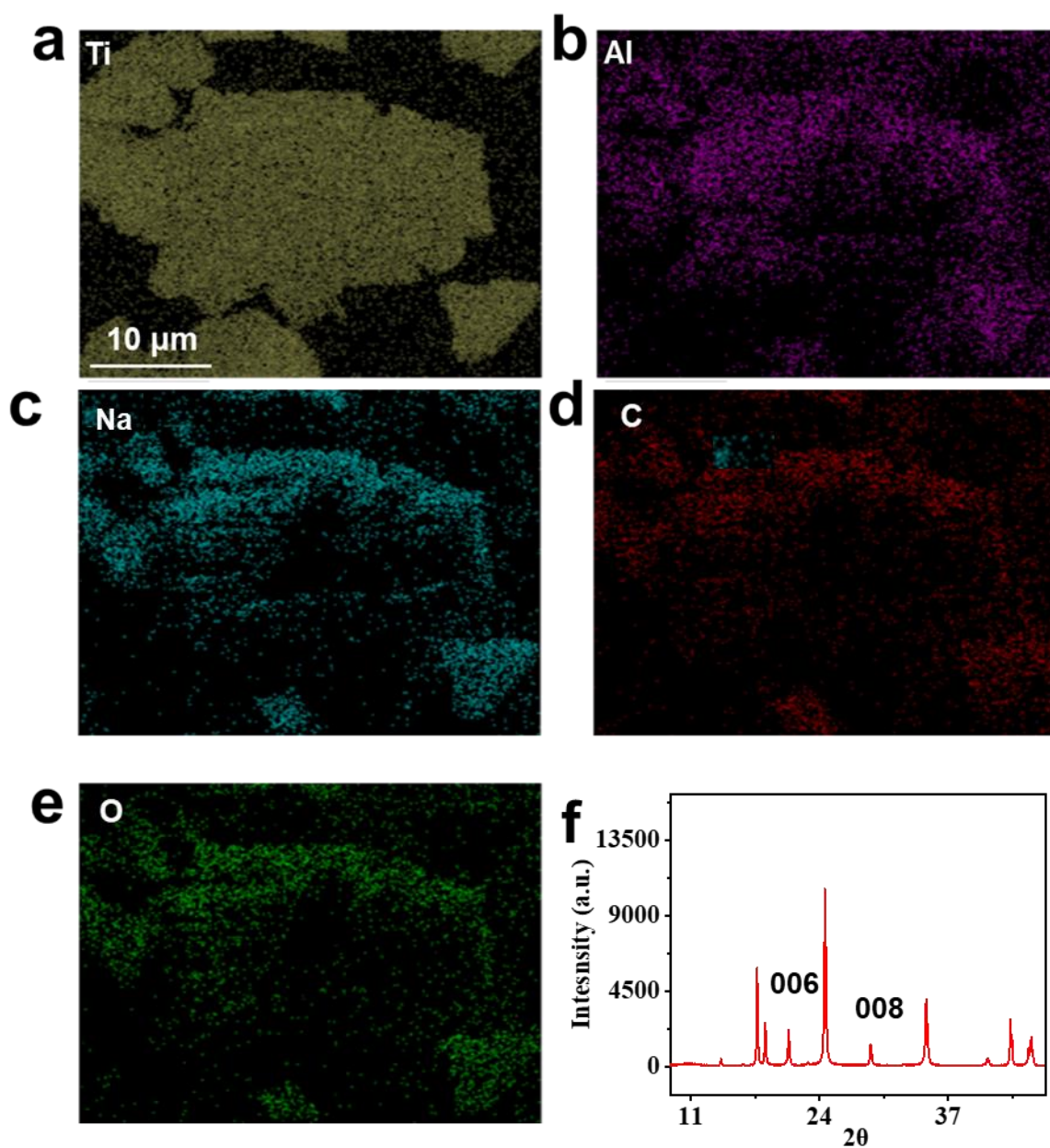
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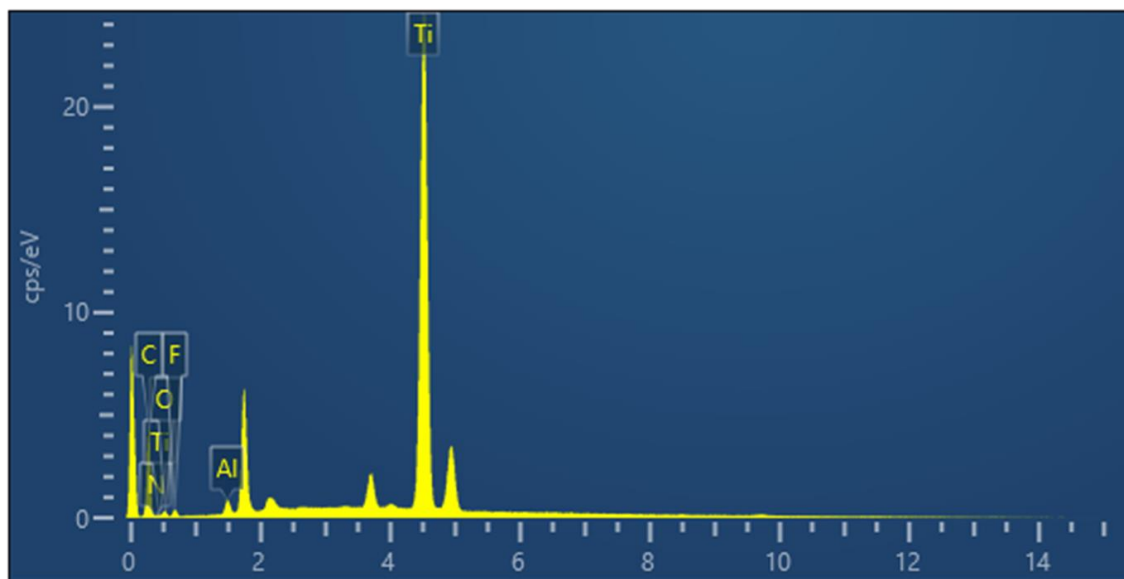
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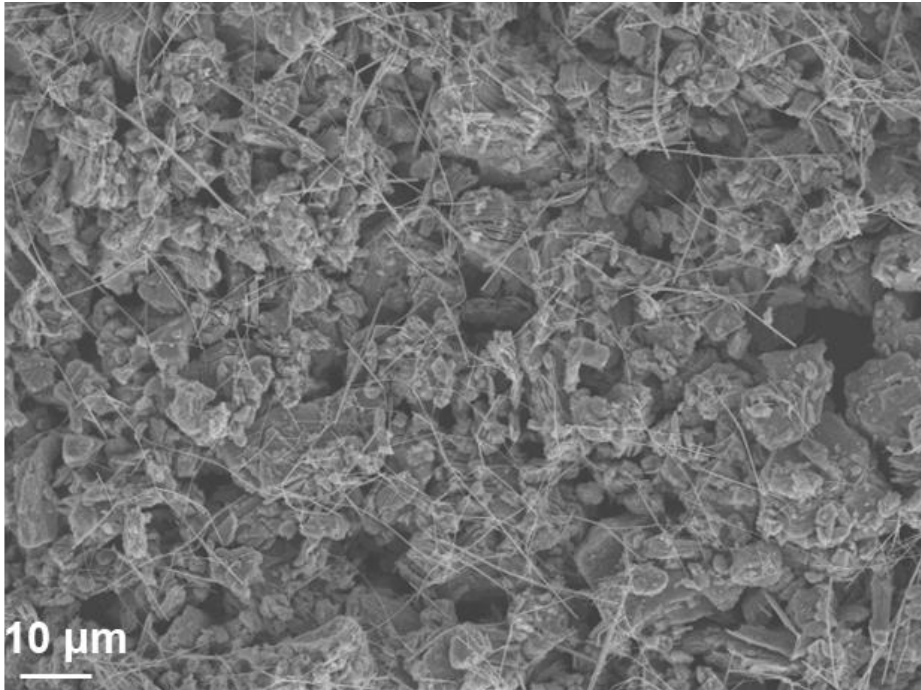
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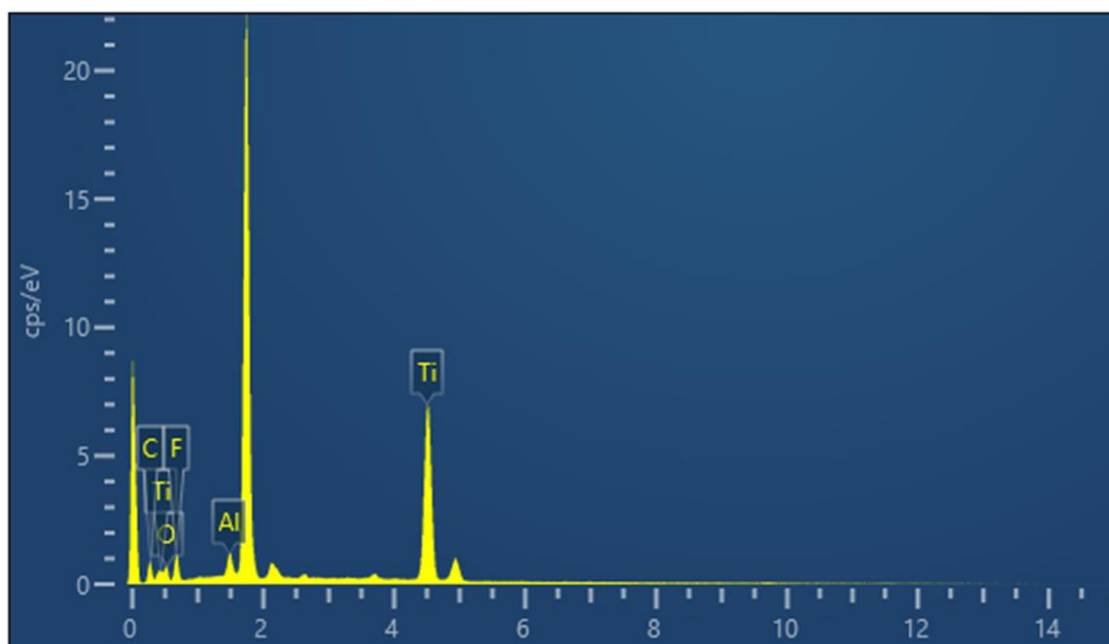
S1. Mapping analysis of MXene, including the a) Ti, b) Al, c) Na, d) C and e) O. f) XRD analysis of MXene.



S2. Elemental analysis for MXene.



S3.SEM characterization for bulk Mxene/MWCNTs.



S4. Elemental analysis for MXene/MWCNTs.

Table S1. Elemental analysis of MXene.

| Element | Type | wt% | Wt % Sigma | At% |
|----------------|-------------|---------------|-------------------|---------------|
| C | K | 12.18 | 0.36 | 26.61 |
| O | K | 10.27 | 0.51 | 16.84 |
| F | K | 4.88 | 0.05 | 1.56 |
| Al | K | 13.88 | 0.38 | 22.78 |
| Ti | K | 58.78 | 0.49 | 32.21 |
| Total | | 100.00 | | 100.00 |

Table S2. Elemental analysis of MXene/MWCNTs.

| Element | Type | wt% | Wt % Sigma | At% |
|----------------|-------------|---------------|-------------------|---------------|
| C | K | 20.08 | 0.20 | 47.46 |
| N | K | 0.00 | 0.15 | 0.00 |
| O | K | 2.45 | 0.20 | 4.34 |
| F | K | 2.05 | 0.10 | 3.07 |
| Al | K | 0.91 | 0.02 | 0.96 |
| Ti | K | 74.52 | 0.25 | 44.17 |
| Total | | 100.00 | | 100.00 |

Table S3. Clinical cohorts of psoriasis and health controls

| Number | Type | Age | Sex | PASI | BSA |
|--------|----------------|-----|--------|------|--------|
| 1 | Psoriasis | 34 | Male | 3 | Medium |
| 2 | Psoriasis | 27 | Female | 1.4 | Mild |
| 3 | Psoriasis | 48 | Female | 8.4 | Medium |
| 4 | Psoriasis | 9 | Female | 34.2 | Severe |
| 5 | Psoriasis | 29 | Female | 11.8 | Medium |
| 6 | Psoriasis | 56 | Male | 20.6 | Severe |
| 7 | Psoriasis | 32 | Male | 31.2 | Severe |
| 8 | Psoriasis | 30 | Male | 21.3 | Medium |
| 9 | Psoriasis | 32 | Male | 13.8 | Severe |
| 10 | Psoriasis | 35 | Male | 2.8 | Severe |
| 11 | Psoriasis | 37 | Male | 4.7 | Mild |
| 12 | Psoriasis | 9 | Female | 23.5 | Severe |
| 13 | Psoriasis | 68 | Male | 24.1 | Severe |
| 14 | Psoriasis | 62 | Male | 33.9 | Severe |
| 15 | Psoriasis | 54 | Male | 34.5 | Severe |
| 16 | Psoriasis | 31 | Male | 39.1 | Severe |
| 17 | Psoriasis | 59 | Female | 12.8 | Severe |
| 18 | Psoriasis | 27 | Female | 3.5 | Medium |
| 19 | Psoriasis | 69 | Male | 23.4 | Severe |
| 20 | Psoriasis | 41 | Male | 8.7 | Severe |
| 21 | Psoriasis | 29 | Male | 19 | Severe |
| 22 | Psoriasis | 49 | Female | 28.5 | Severe |
| 23 | Psoriasis | 22 | Female | 27.8 | Severe |
| 24 | Psoriasis | 67 | Male | 20.8 | Severe |
| 25 | Psoriasis | 37 | Male | 30.7 | Severe |
| 26 | Psoriasis | 52 | Male | 39.6 | Severe |
| 27 | Psoriasis | 75 | Male | 26.6 | Severe |
| 28 | Psoriasis | 24 | Female | 6.9 | Severe |
| 29 | Psoriasis | 25 | Male | 9 | Severe |
| 30 | Psoriasis | 56 | Male | 17.9 | Severe |
| 31 | Psoriasis | 27 | Male | 4 | Severe |
| 32 | Psoriasis | 22 | Male | 16.2 | Severe |
| 33 | Psoriasis | 27 | Male | 15.2 | Severe |
| 34 | Psoriasis | 20 | Male | 1.2 | Mild |
| 35 | Psoriasis | 31 | Female | 9.8 | Severe |
| 36 | Psoriasis | 45 | Male | 1.2 | Mild |
| 37 | Psoriasis | 35 | Male | 5.3 | Severe |
| 38 | Psoriasis | 70 | Male | 14.7 | Severe |
| 1 | Health control | 39 | Female | / | / |
| 2 | Health control | 24 | Female | / | / |
| 3 | Health control | 32 | Male | / | / |

| | | | | | |
|----|----------------|----|--------|---|---|
| 4 | Health control | 24 | Female | / | / |
| 5 | Health control | 37 | Female | / | / |
| 6 | Health control | 43 | Female | / | / |
| 7 | Health control | 28 | Female | / | / |
| 8 | Health control | 38 | Female | / | / |
| 9 | Health control | 58 | Female | / | / |
| 10 | Health control | 61 | Male | / | / |
| 11 | Health control | 23 | Female | / | / |
| 12 | Health control | 58 | Female | / | / |
| 13 | Health control | 31 | Female | / | / |
| 14 | Health control | 30 | Female | / | / |
| 15 | Health control | 31 | Female | / | / |
| 16 | Health control | 28 | Female | / | / |
| 17 | Health control | 35 | Female | / | / |
| 18 | Health control | 29 | Female | / | / |
| 19 | Health control | 32 | Female | / | / |
| 20 | Health control | 25 | Female | / | / |
| 21 | Health control | 32 | Male | / | / |
| 22 | Health control | 66 | Female | / | / |
| 23 | Health control | 20 | Female | / | / |
| 24 | Health control | 68 | Female | / | / |
| 25 | Health control | 35 | Female | / | / |
| 26 | Health control | 50 | Male | / | / |
| 27 | Health control | 40 | Male | / | / |
| 28 | Health control | 49 | Female | / | / |
| 29 | Health control | 60 | Female | / | / |
| 30 | Health control | 29 | Male | / | / |
| 31 | Health control | 37 | Female | / | / |
| 32 | Health control | 52 | Male | / | / |