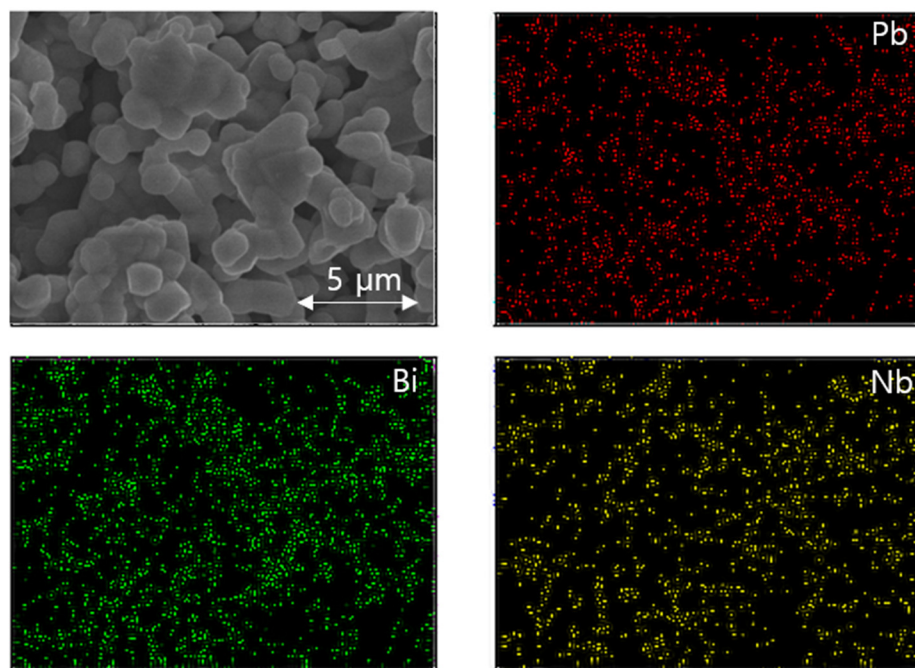


# Synthesis and Characterization of Fe doped Aurivillius-phase $\text{PbBi}_2\text{Nb}_2\text{O}_9$ perovskite and their photocatalytic activity on the degradation of methylene blue



**Figure S1.** SEM-EDX images of as-synthesized non-doped PBNO.

**Table S1.** SEM-EDX atomic percent results of as-synthesized PBNO and PBNO-0.2F.

<b>PBNO Element</b>	<b>Weight (%)</b>	<b>Atomic (%)</b>
<b>O</b>	<b>15.07</b>	<b>63.71</b>
<b>Nb</b>	<b>19.66</b>	<b>14.75</b>
<b>Pb</b>	<b>21.45</b>	<b>7.12</b>
<b>Bi</b>	<b>43.82</b>	<b>14.42</b>
<b>Total</b>	<b>100</b>	<b>100</b>

<b>PBNO-0.2F Element</b>	<b>Weight (%)</b>	<b>Atomic (%)</b>
<b>O</b>	<b>15.17</b>	<b>61.95</b>
<b>Nb</b>	<b>19.58</b>	<b>13.77</b>
<b>Pb</b>	<b>21.63</b>	<b>6.82</b>
<b>Bi</b>	<b>39.17</b>	<b>12.25</b>
<b>F</b>	<b>4.45</b>	<b>5.21</b>
<b>Total</b>	<b>100</b>	<b>100</b>