

1 Supplementary Material

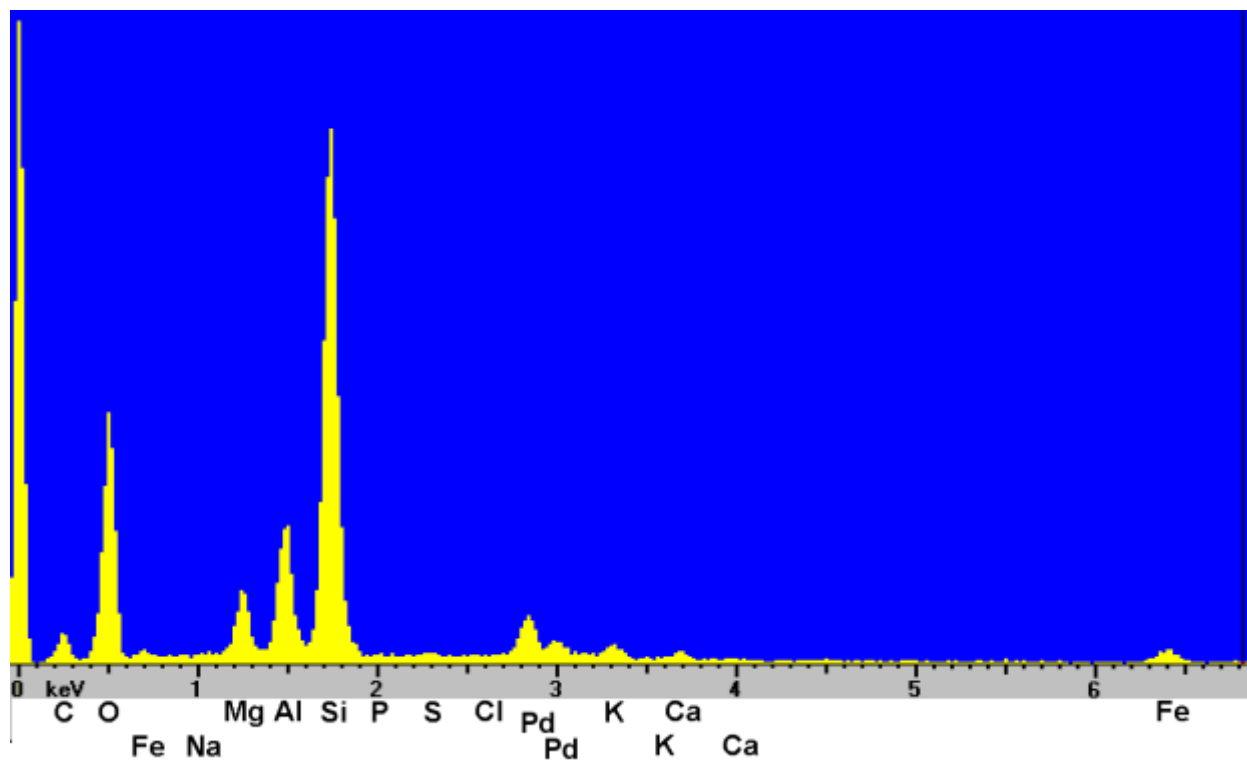
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3 **Supplementary Figure S1.** EDX spectral analyses of spotted areas of the Sargelu and
4 Naokelekan formations, (a) Illite, (b) Dolomite, (c) Plagioclase feldspar, (d) Illite, (e) Pyrite
5 framboïd, (f) Rectorite with organic matter (solid bitumen), (g) Calcite with organic matter
6 (solid bitumen), (h) Pyrite framboïd, (i) Calcite with organic matter (solid bitumen), (j)
7 organic matter (solid bitumen), (k) organic matter (solid bitumen), (l) Kaolinite, (m) Calcite
8 with organic matter (solid bitumen), (n) Organic matter (solid bitumen), (o) Dolomite, (p)
9 Calcite, (q) Pyrite framboïd, (r) Calcium phosphate with organic matter (solid bitumen), (s)
10 Pyrite framboïd, (t) K-feldspar, (u) Calcite, (v) Pyrite framboïd, (w) Montmorillonite, (x)
11 Chlorite, (y) Illite

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13 **Supplementary Figure S1.**

14 **A.**



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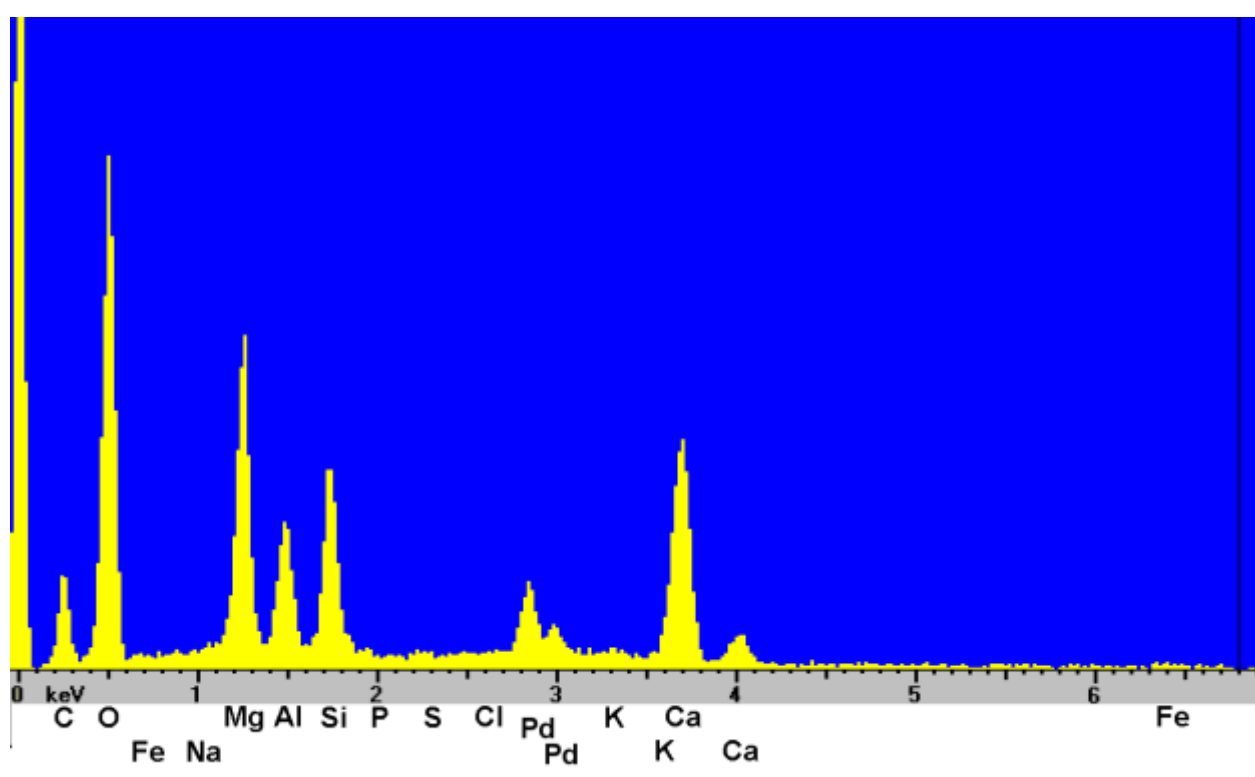
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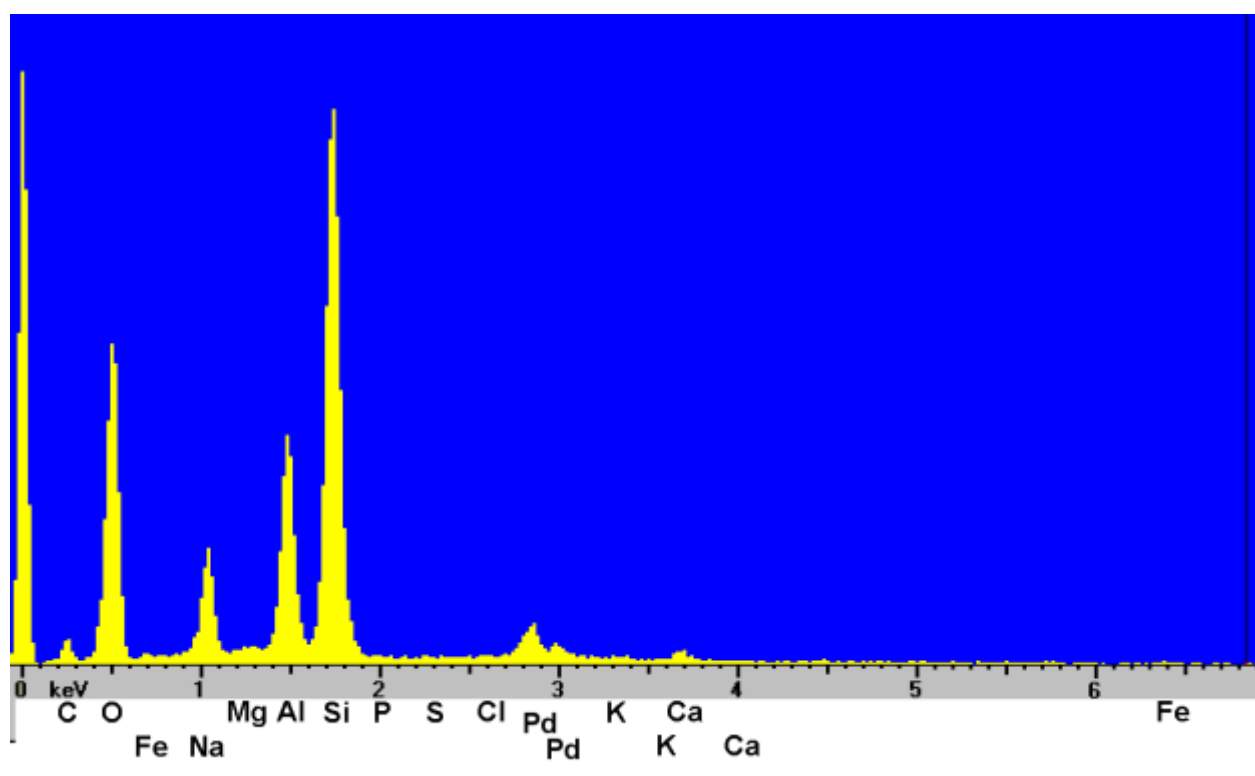
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33 **B.**



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35 **C.**



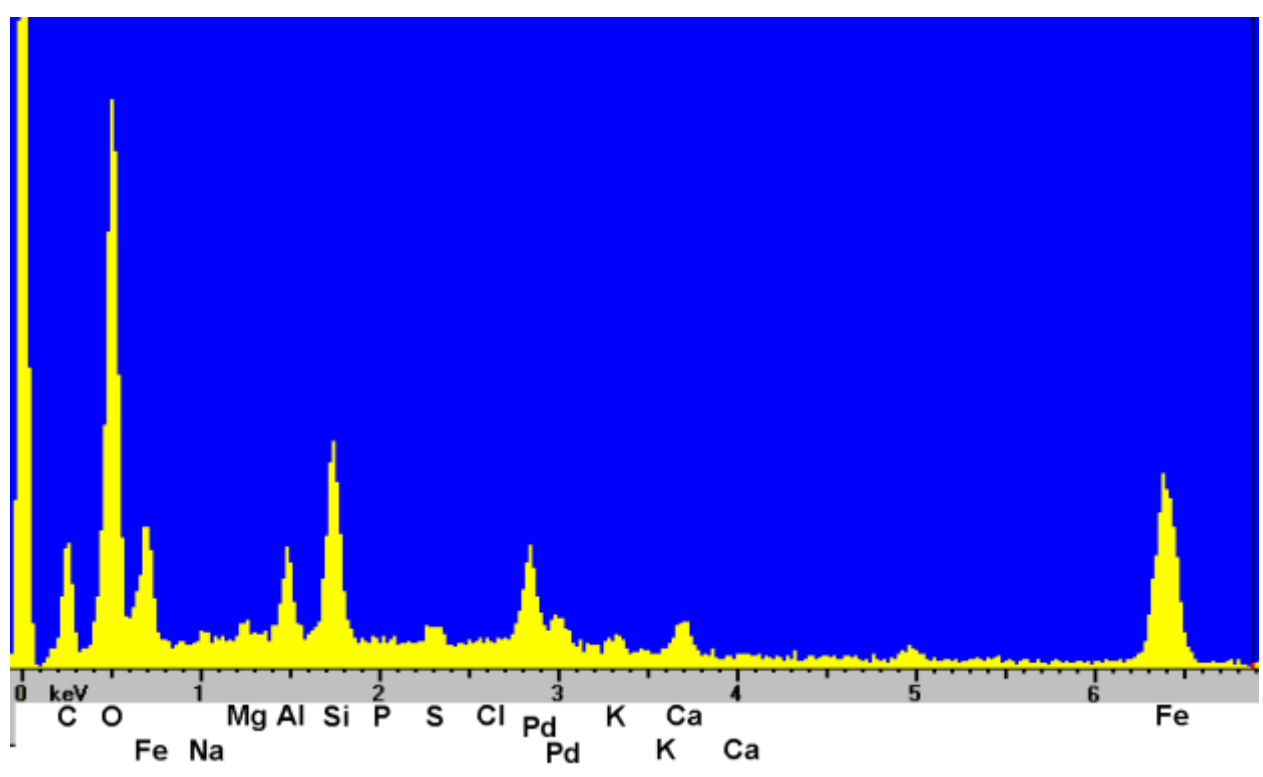
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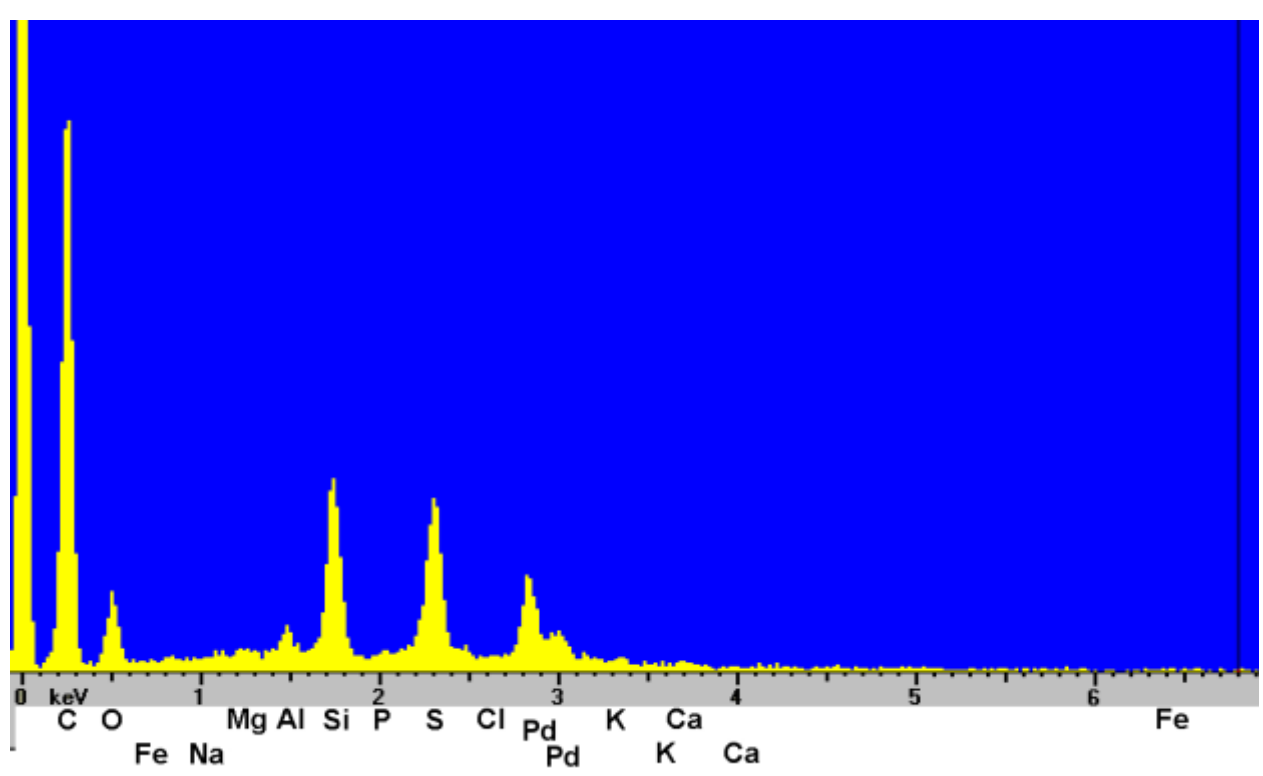
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40 **D.**



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42 **E.**



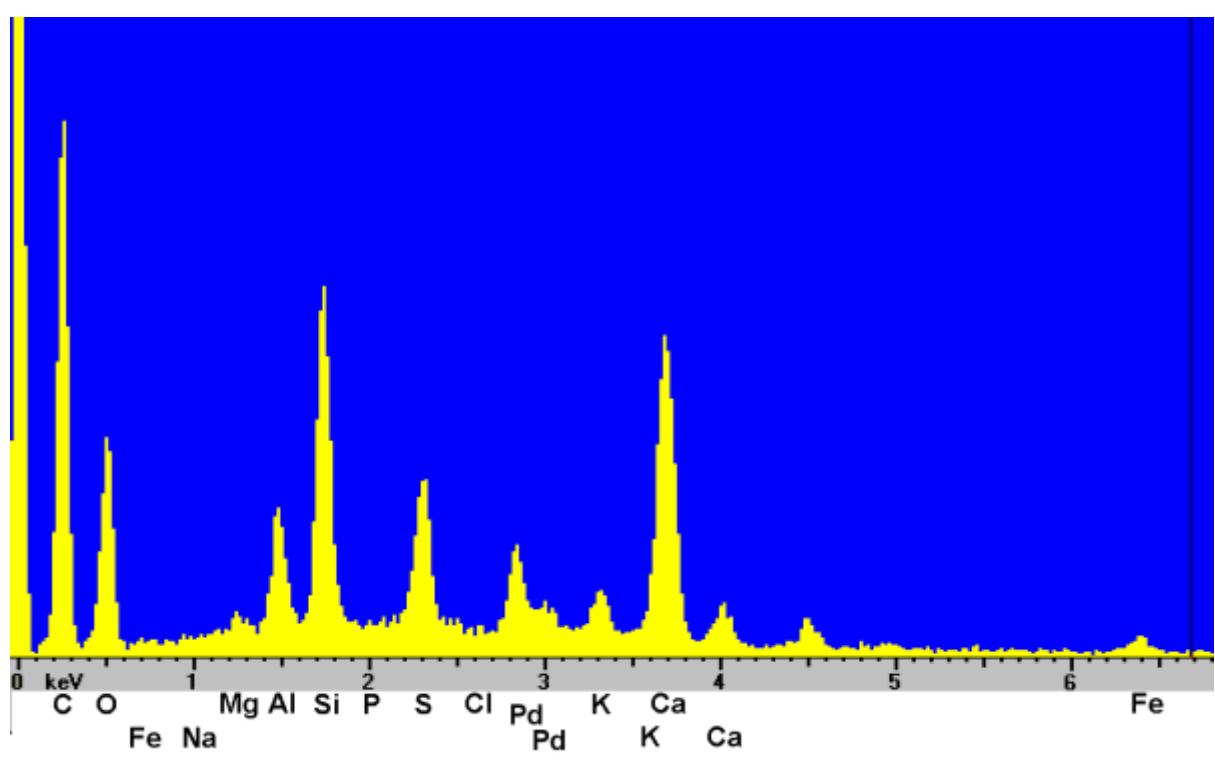
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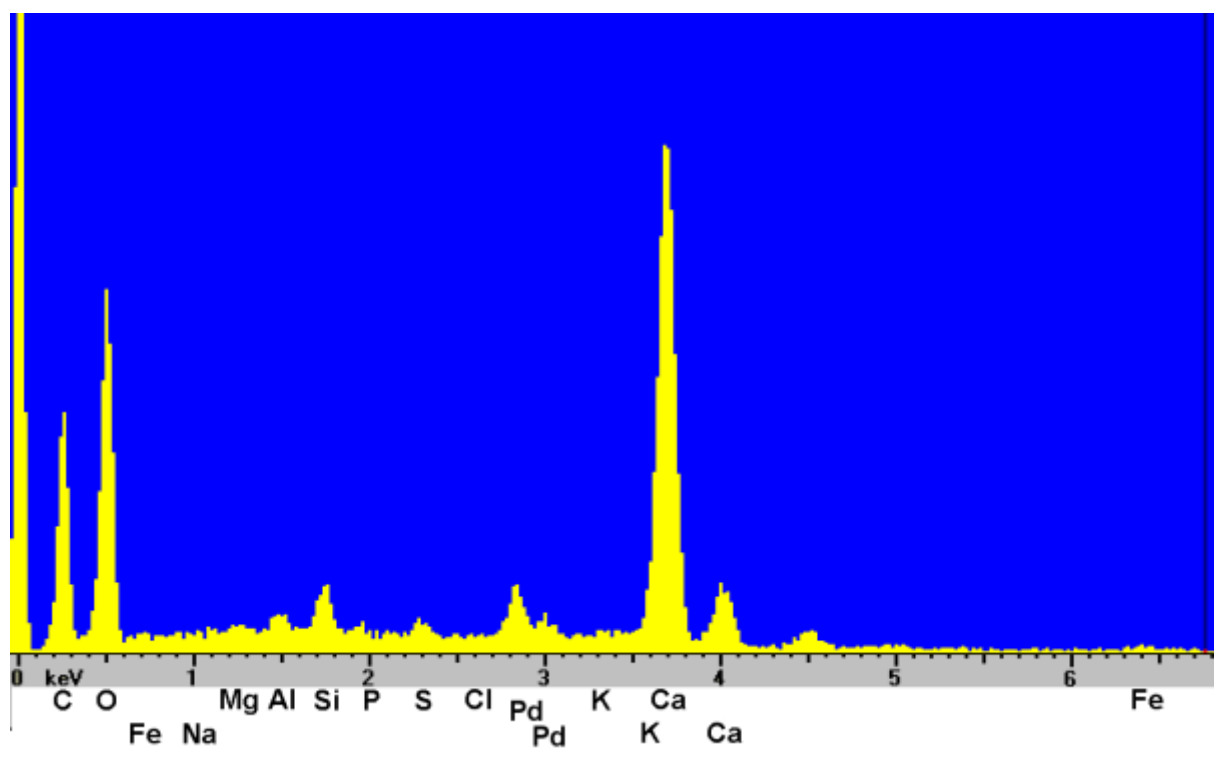
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47 **F.**



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49 **G.**



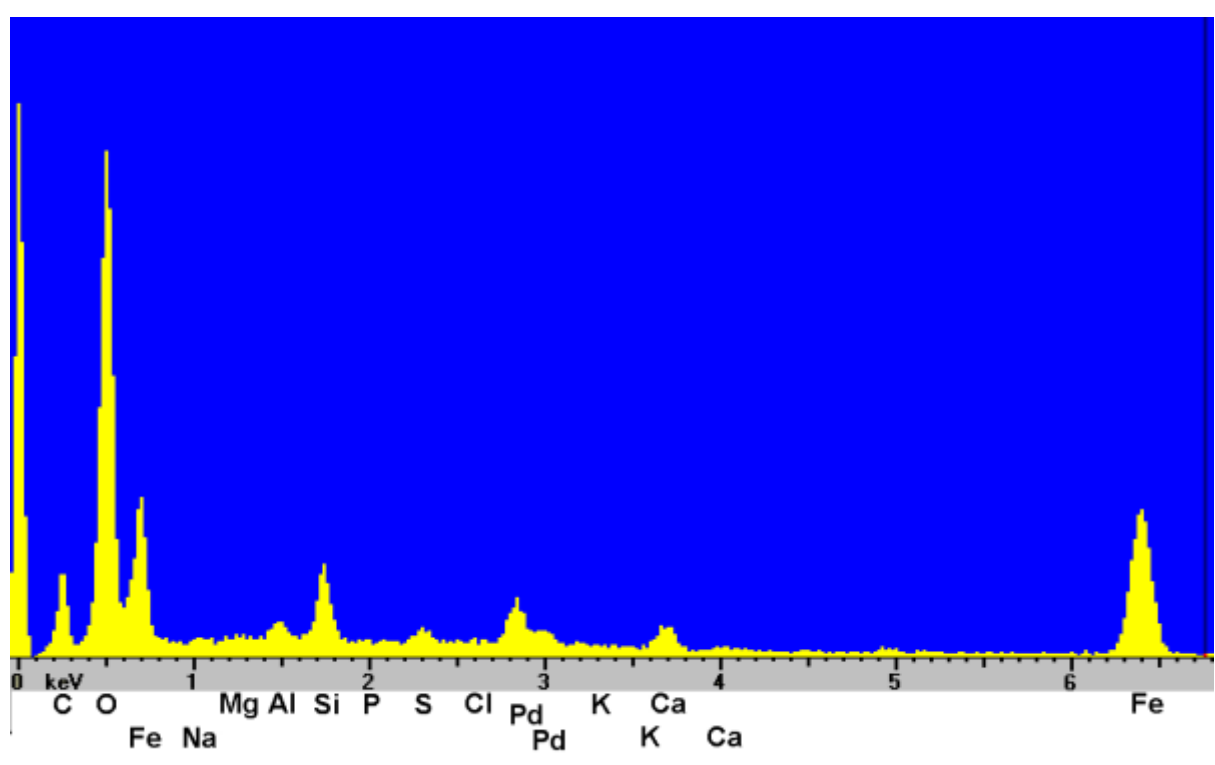
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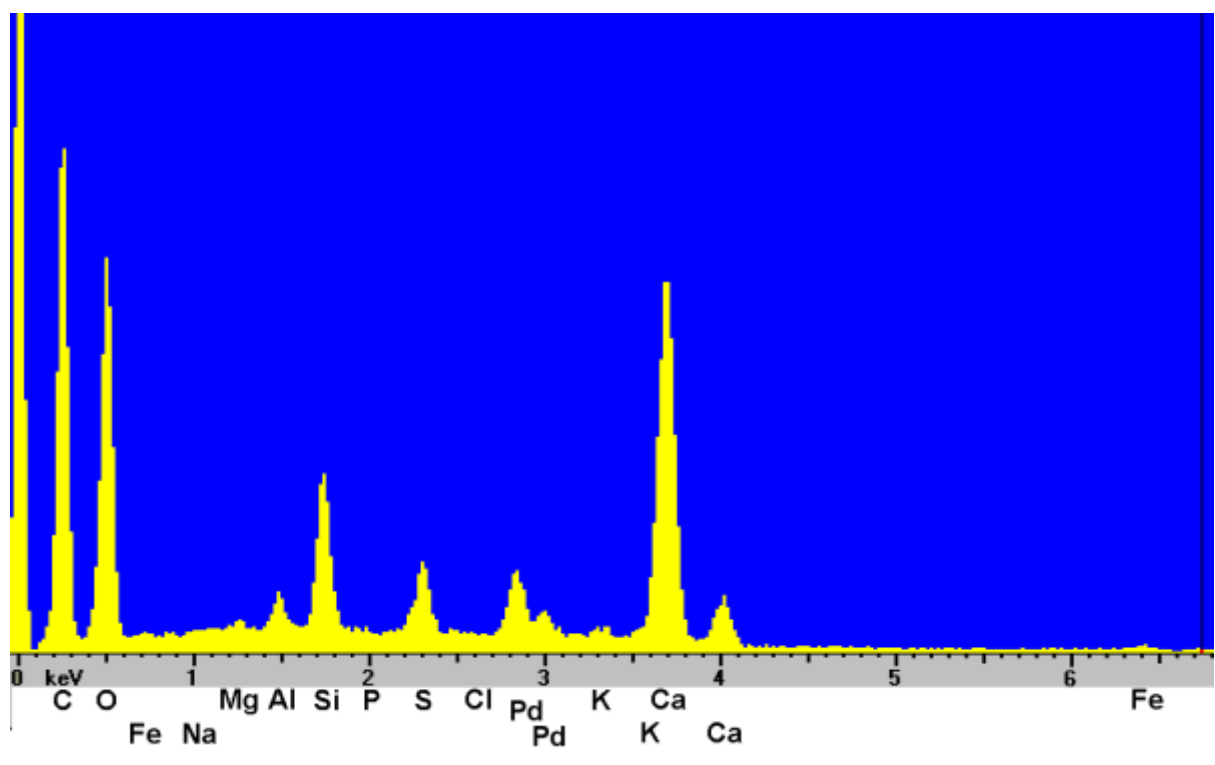
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54 **H.**



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56 **I.**



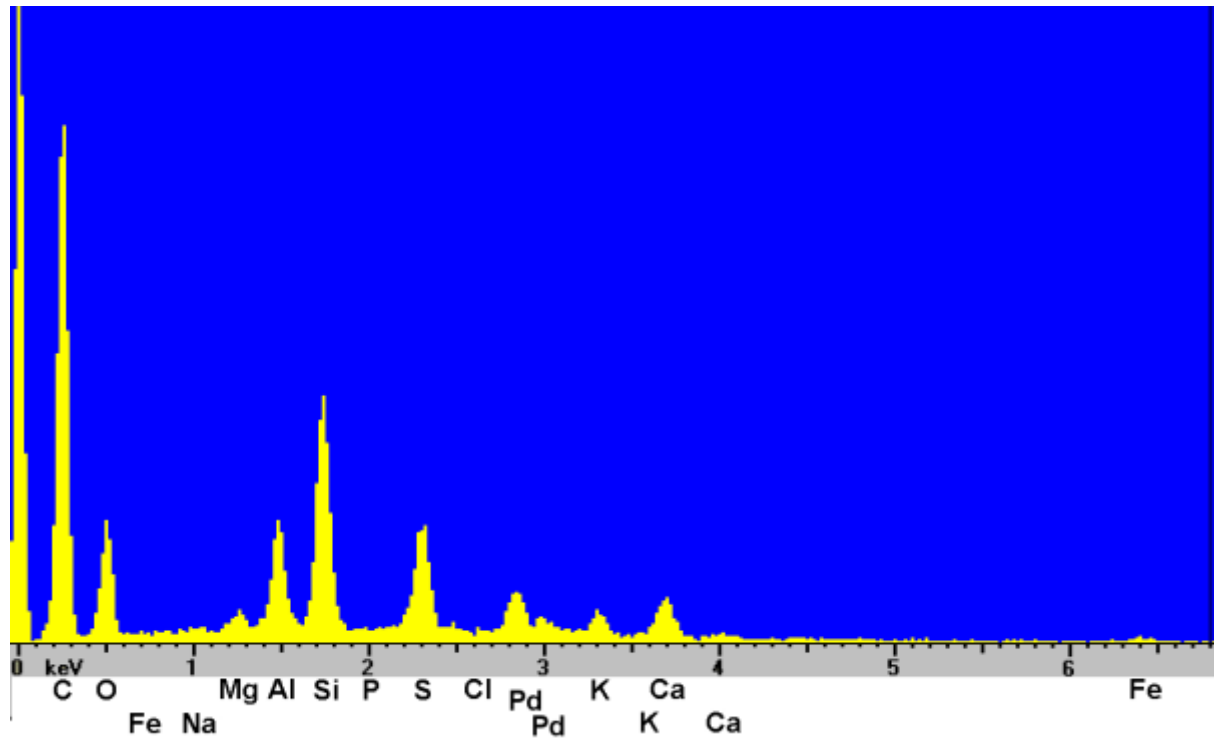
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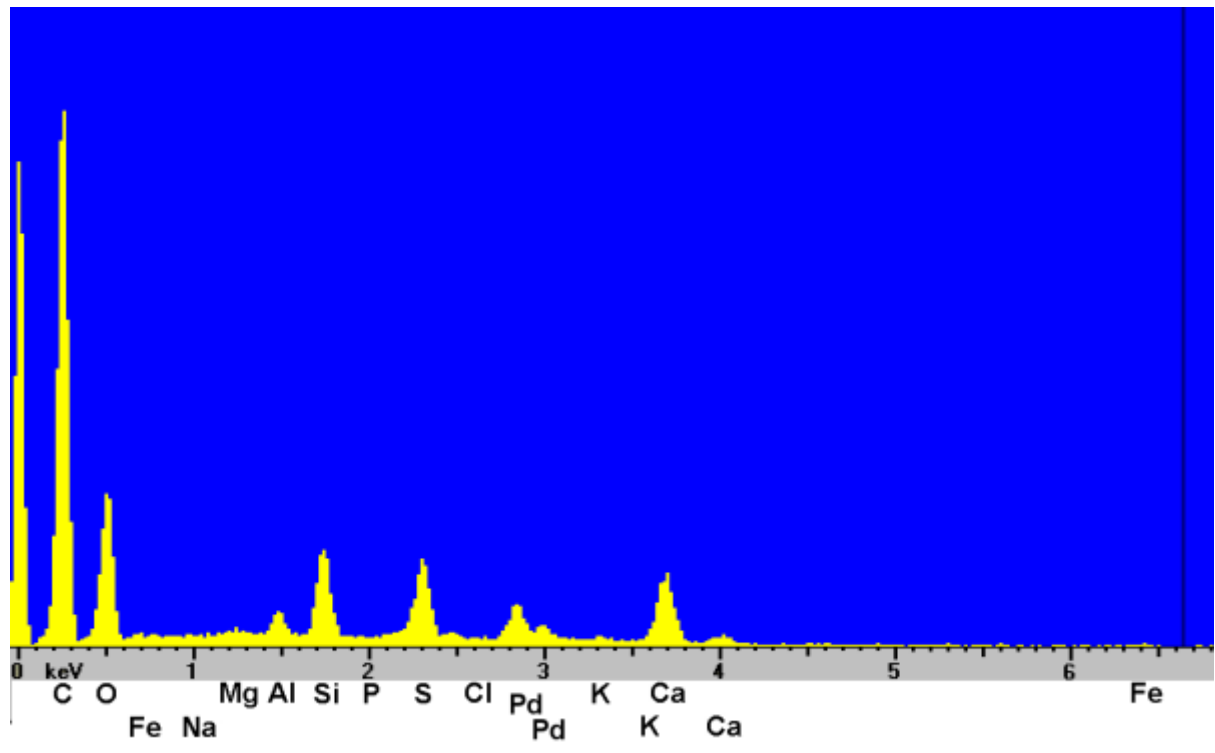
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61 **J.**



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63 **K.**



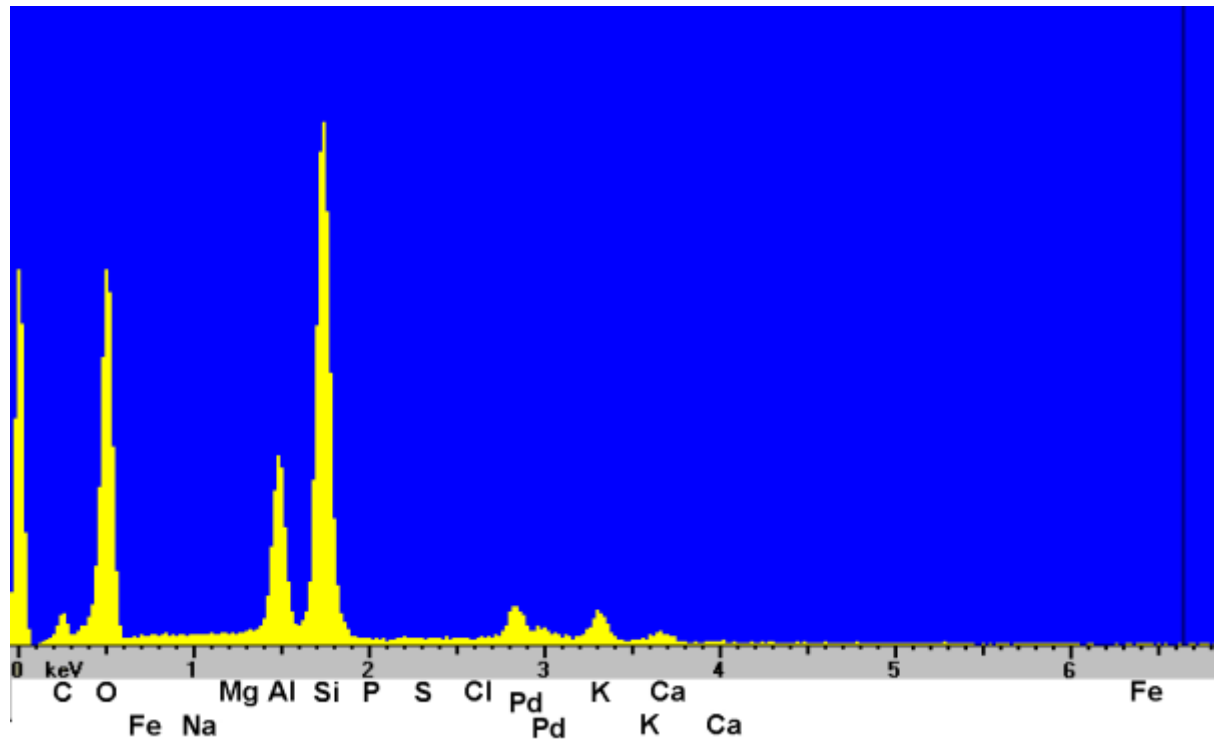
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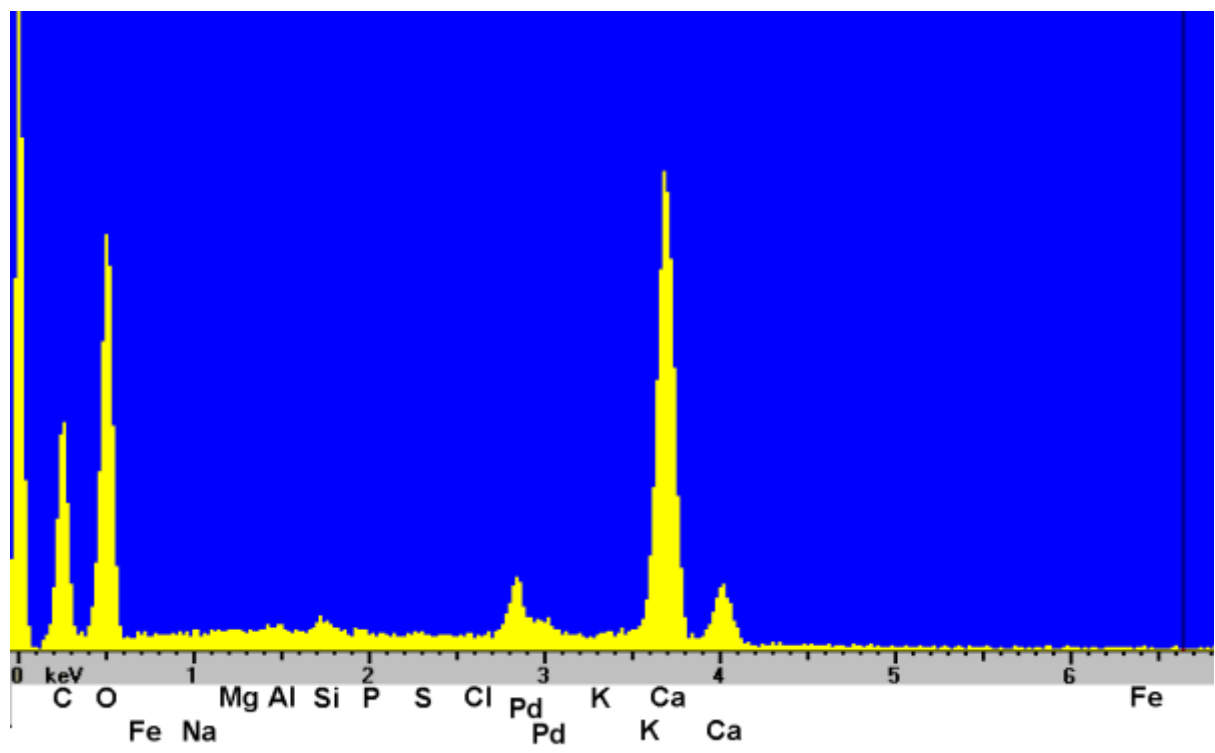
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68 **L.**



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70 **M.**



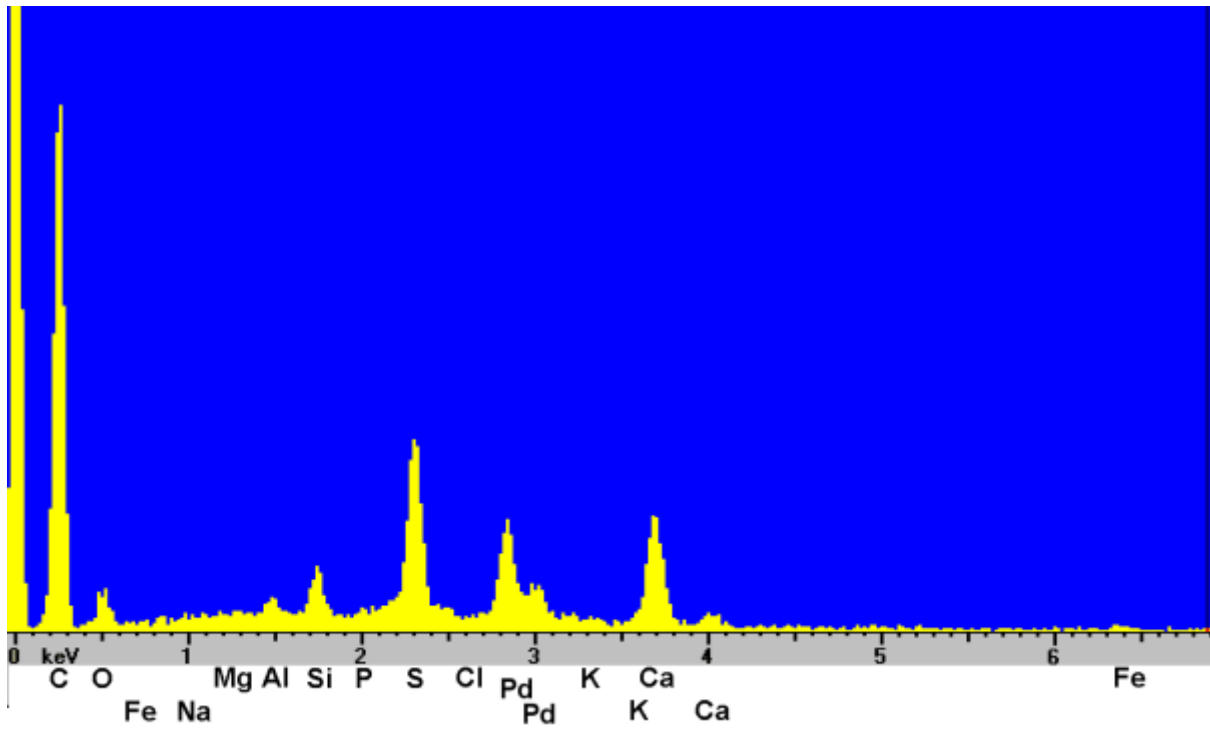
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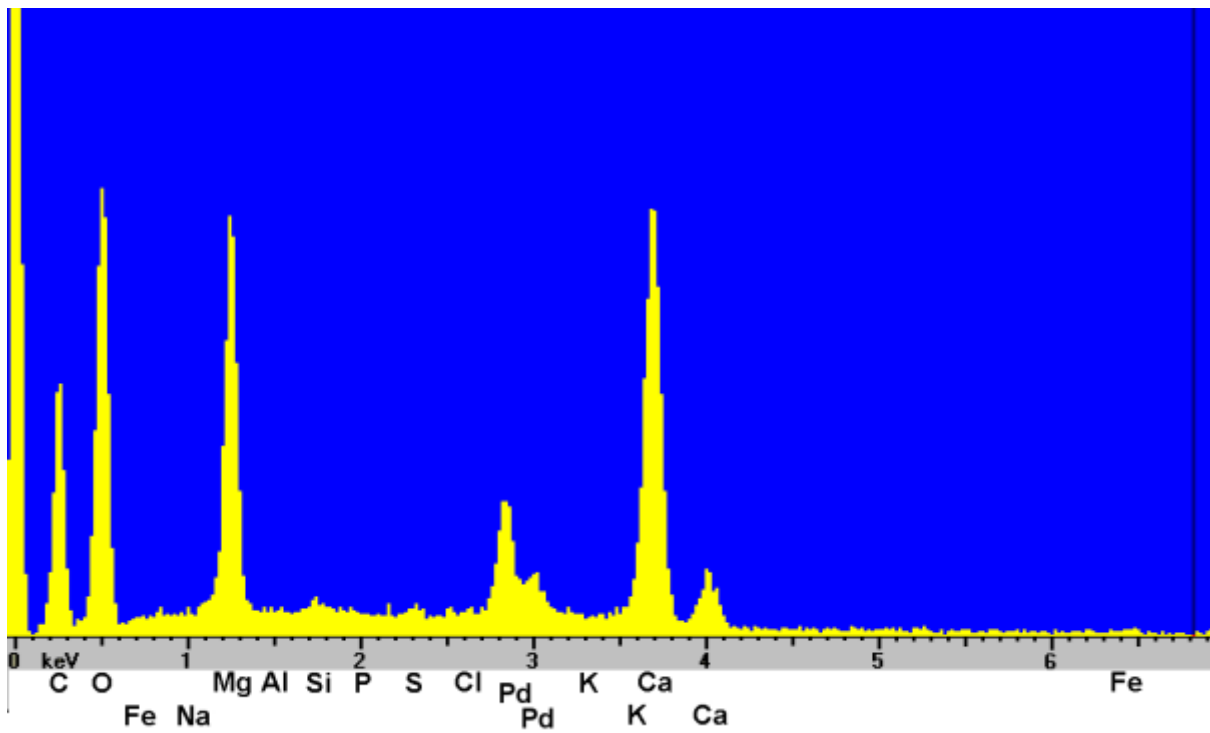
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75 N.



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77 O.



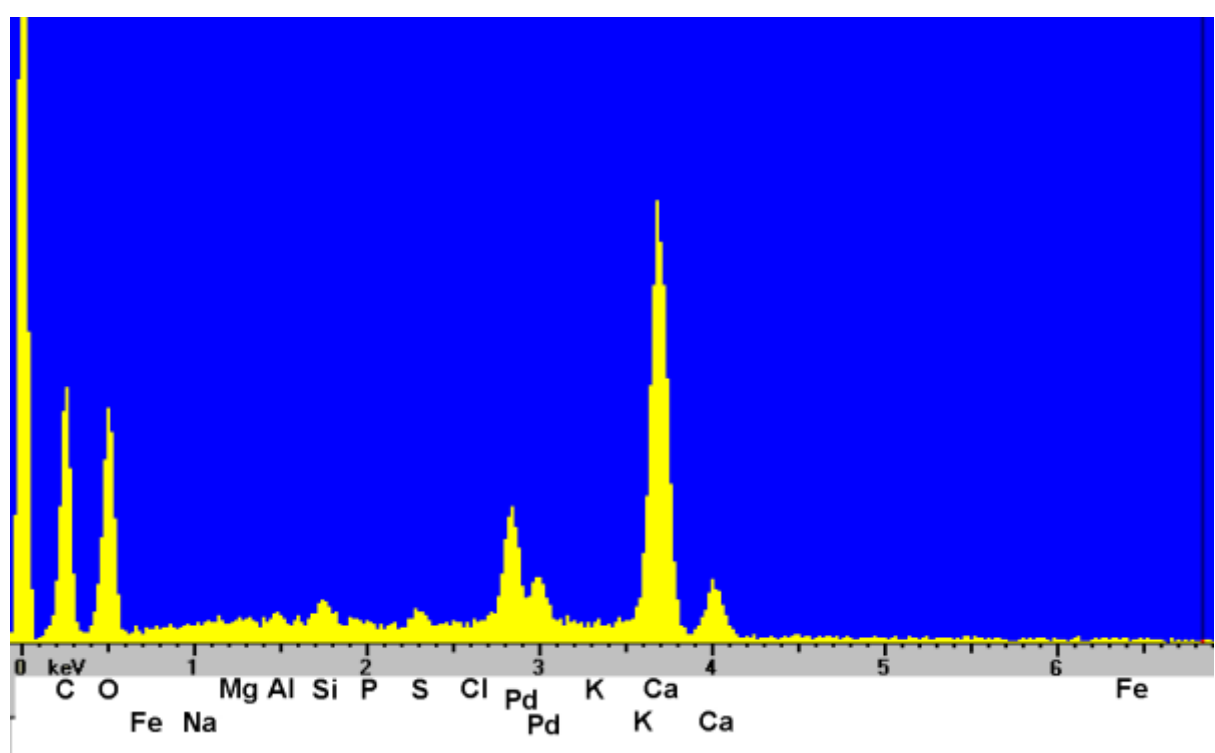
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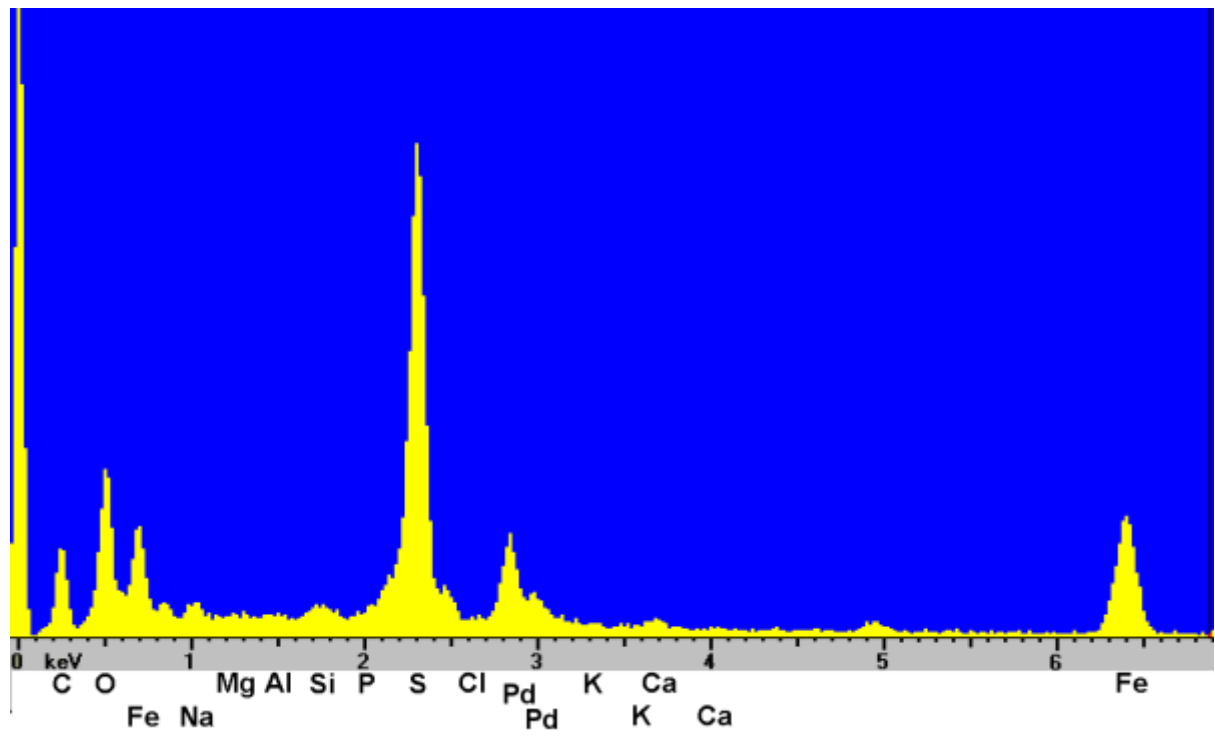
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82 **P.**



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84 **Q.**



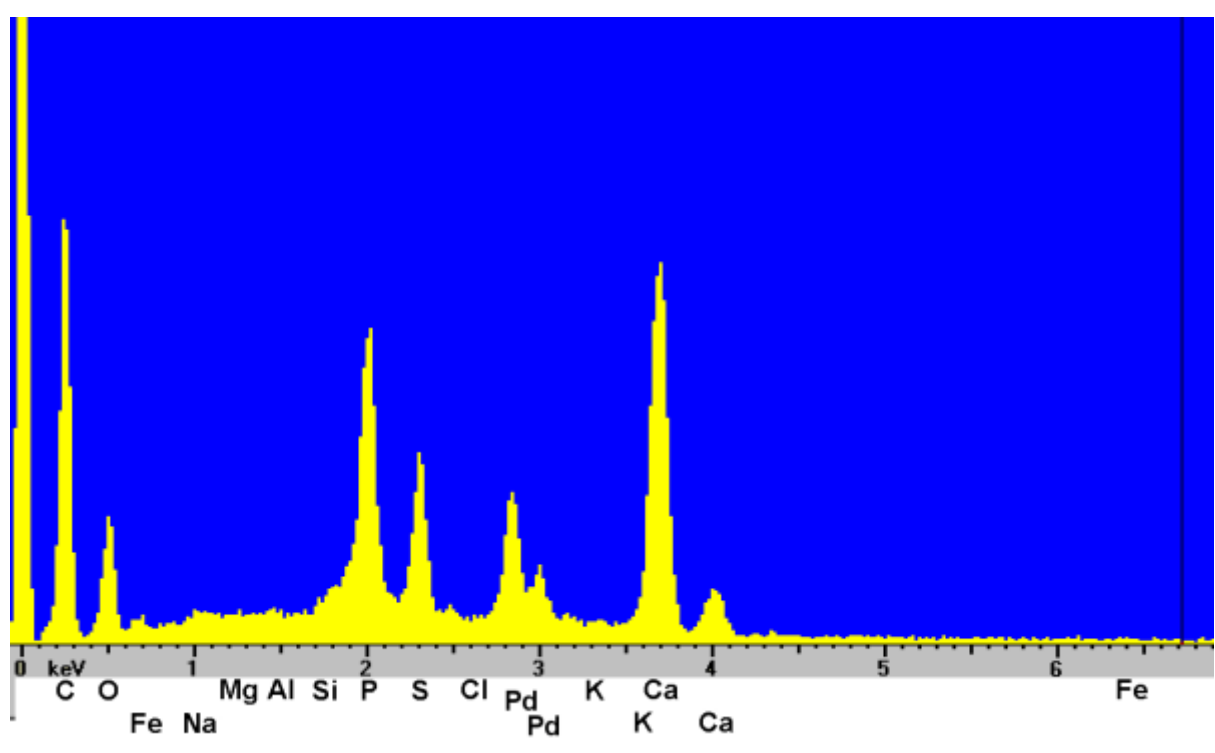
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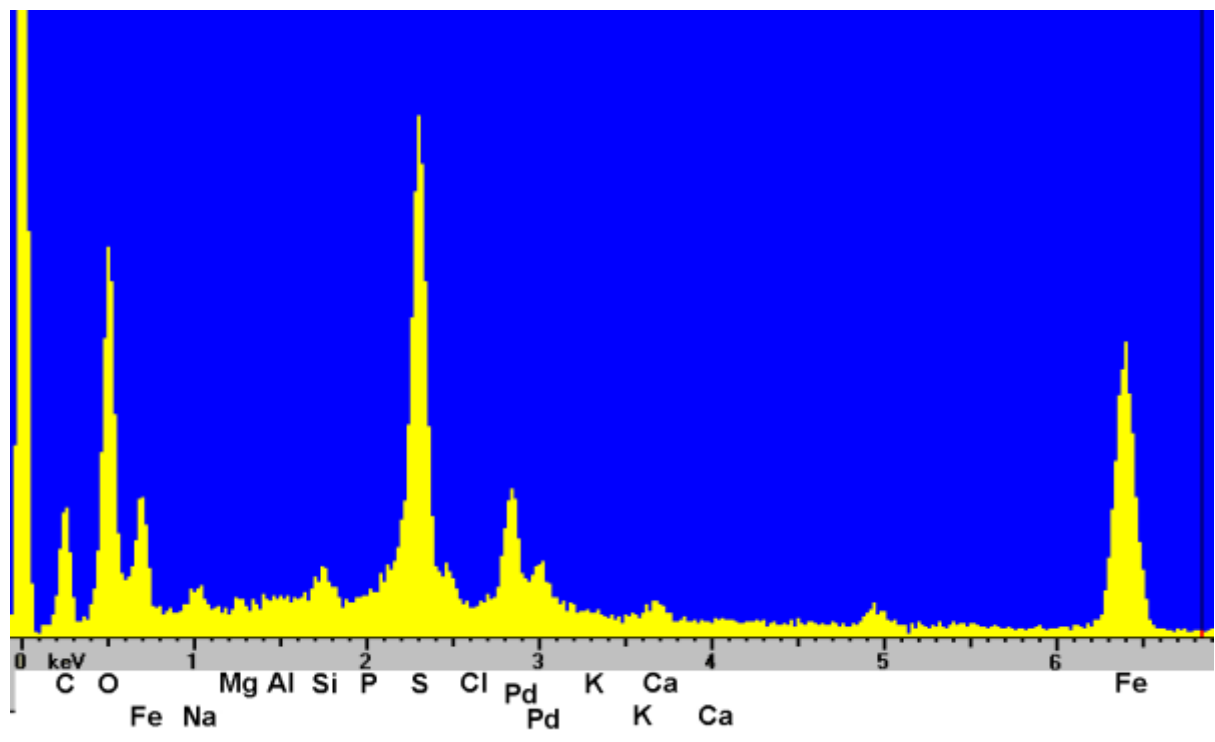
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89 **R.**



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91 **S.**



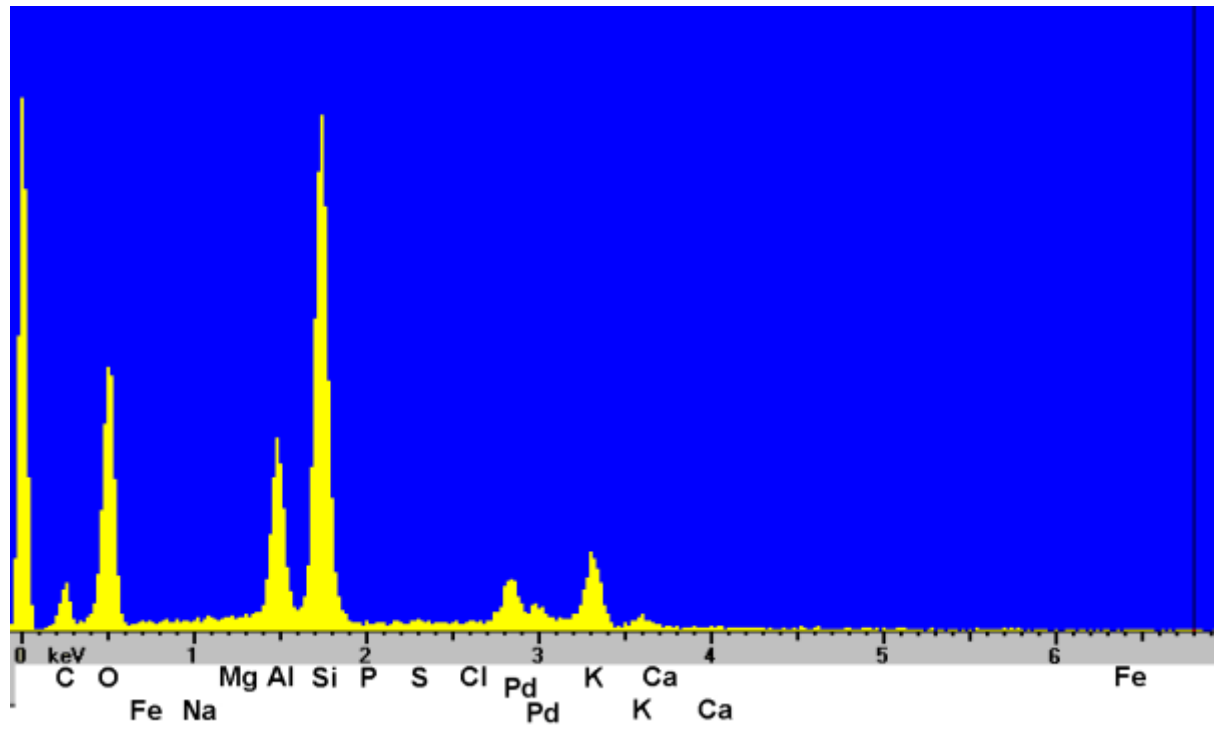
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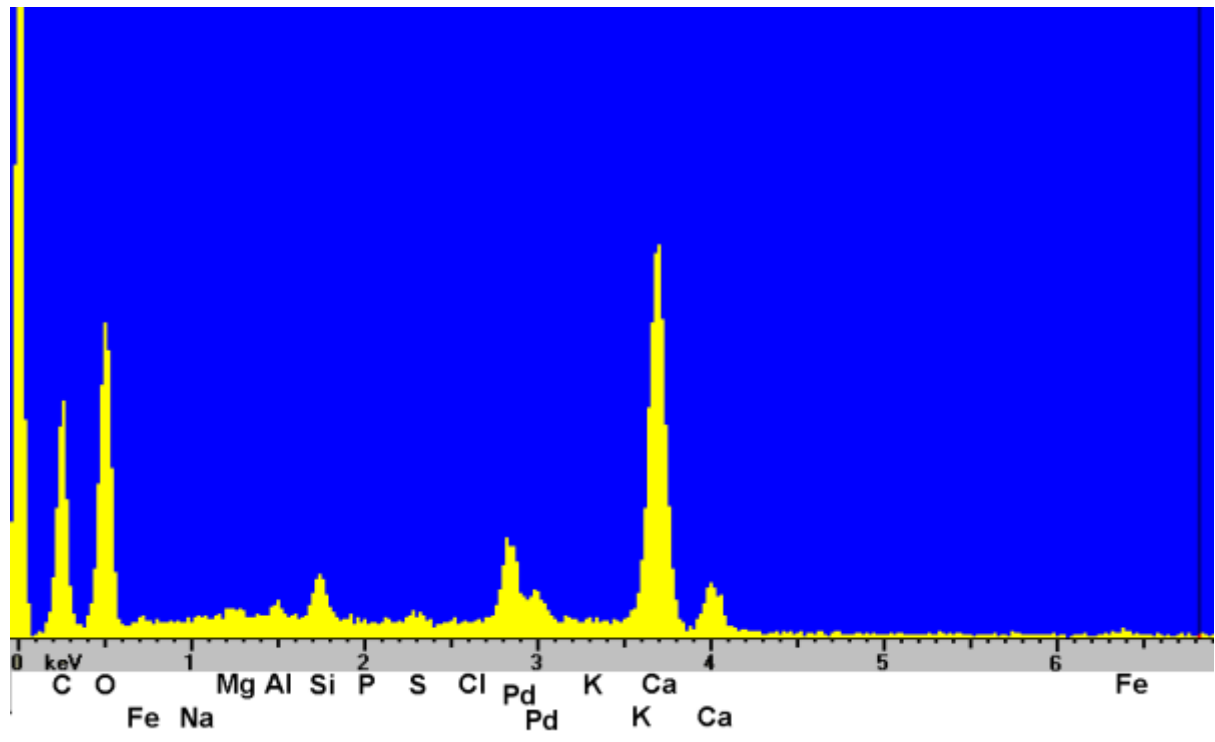
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96 **T.**



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98 **U.**



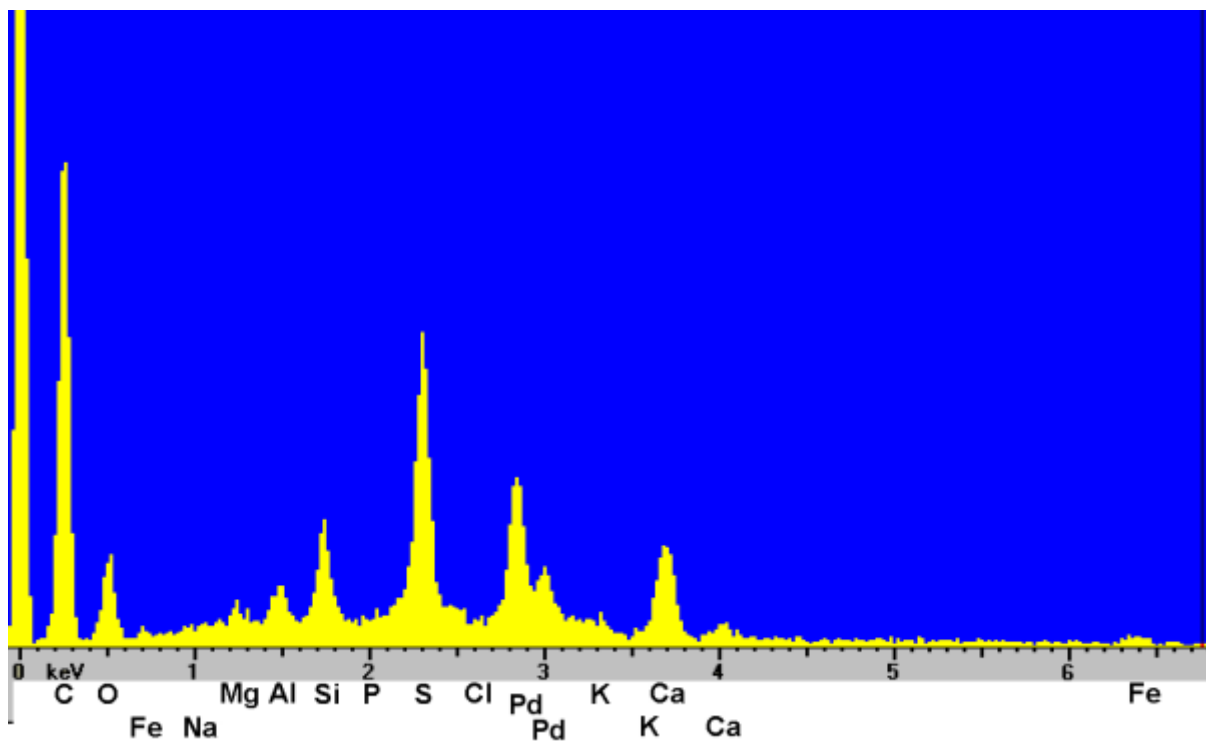
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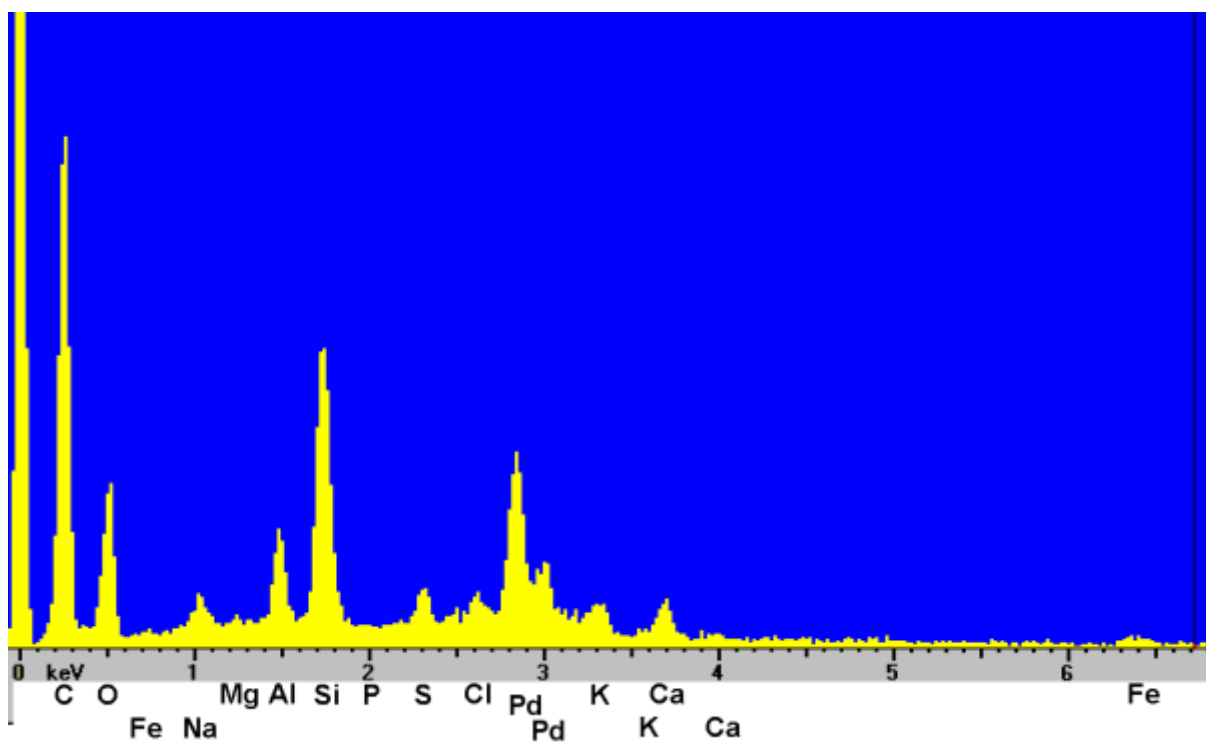
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103 V.



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105 W.



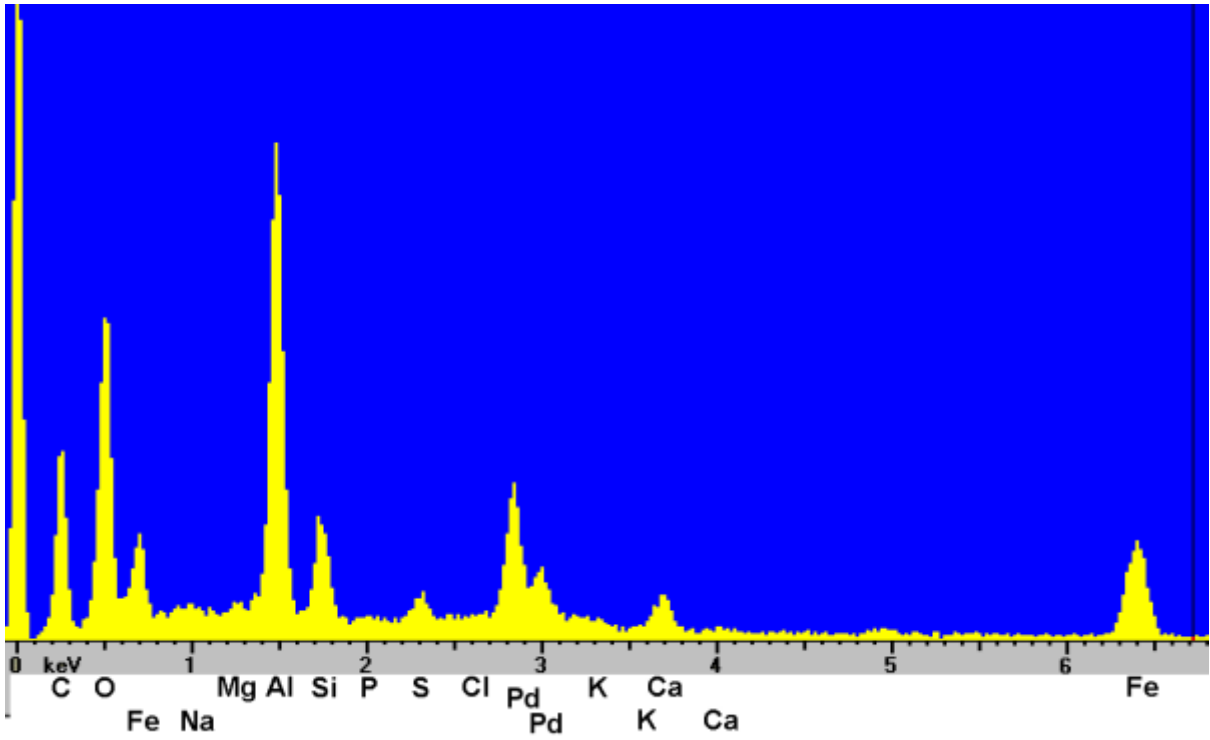
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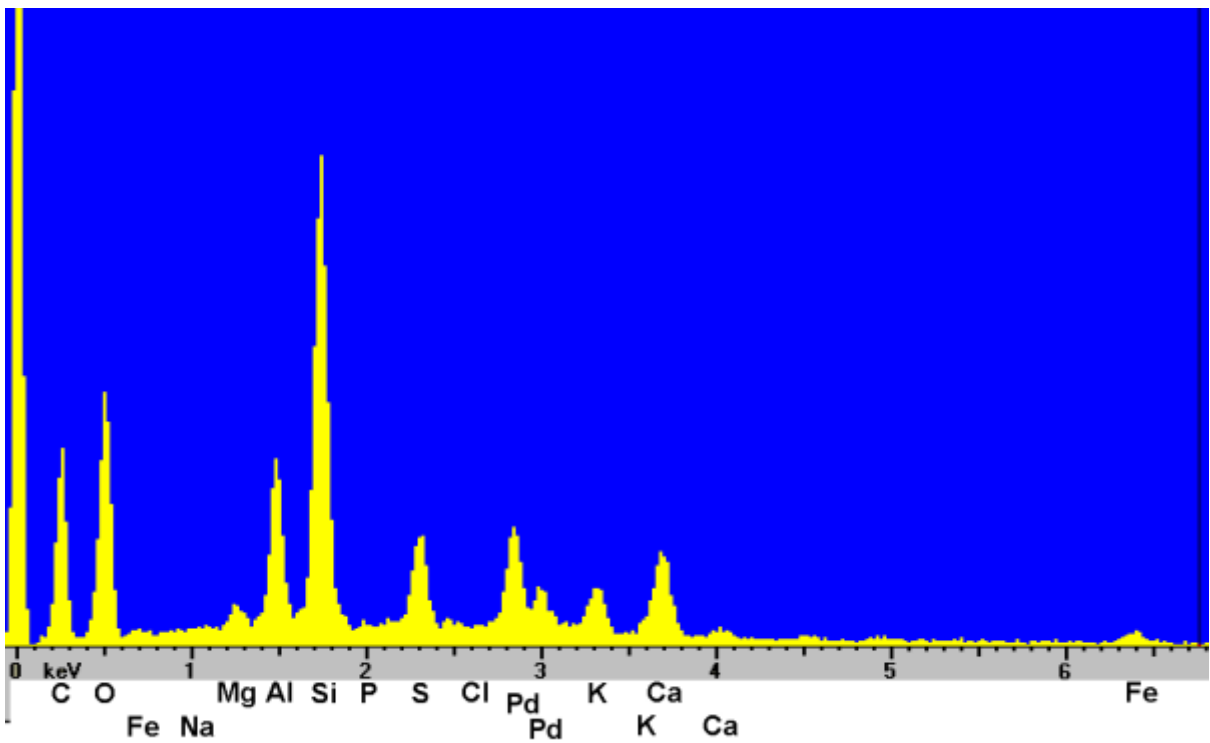
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110 X.



111

112 Y.



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