

AzuRe171



Descrição: Azulejo do século XVIII (1700-1750);

Origem: Coimbra.

Amostras: Fragmentos em depósito no *Museu Nacional do Azulejo*, Lisboa.

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 - ✓ Porosimetria de mercúrio
- **Caracterização Química/Mineralógica**
 - ✓ Análise por SEM/EDS

AzuRe171





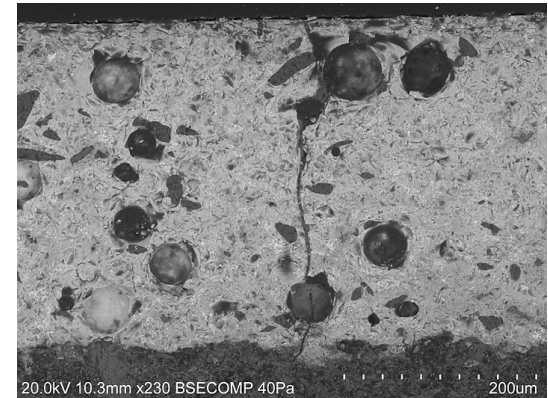
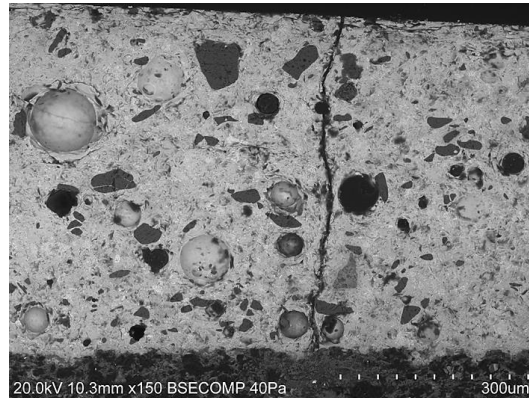
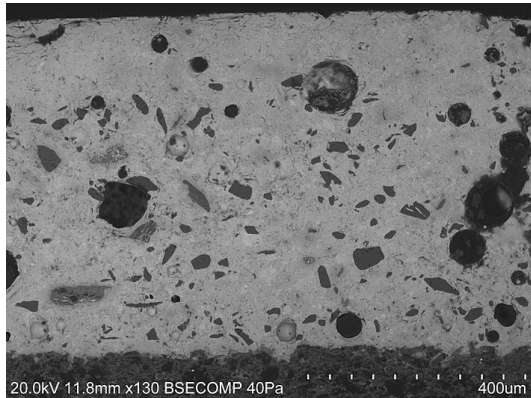
Azulejo com craquelé evidente mas pouco aberto. Apresenta um grande número de poros e uma fenda de fabrico no interior da área vidrada.



- Espessura do Azulejo = 12 mm



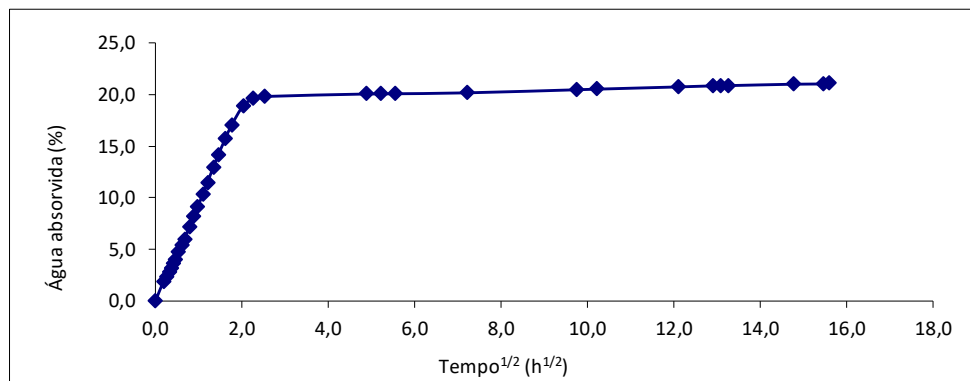
Chacota bege compacta com alguns poros alongados e circulares; efeito de marmoreado claro; vazios alongados e pequenas inclusões; craquelé com ligação ao vazio alongado mais fechado.



- Observa-se craquelé.
- Espessura do Vidrado = 620 μm

Equipamento: Microscópio eletrónico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.

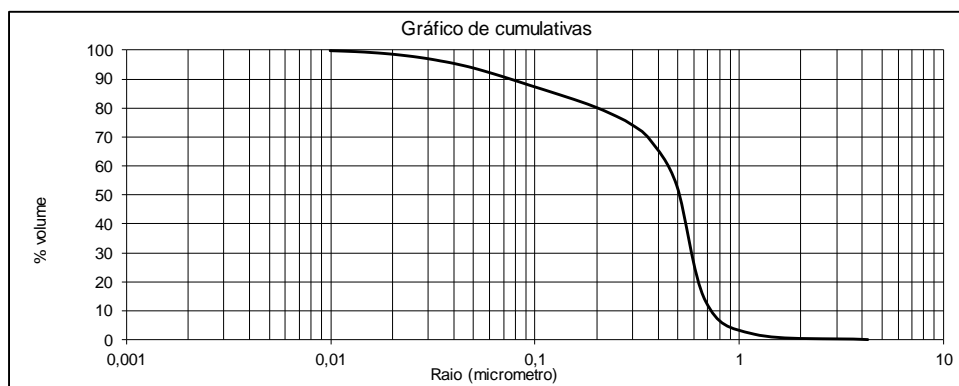
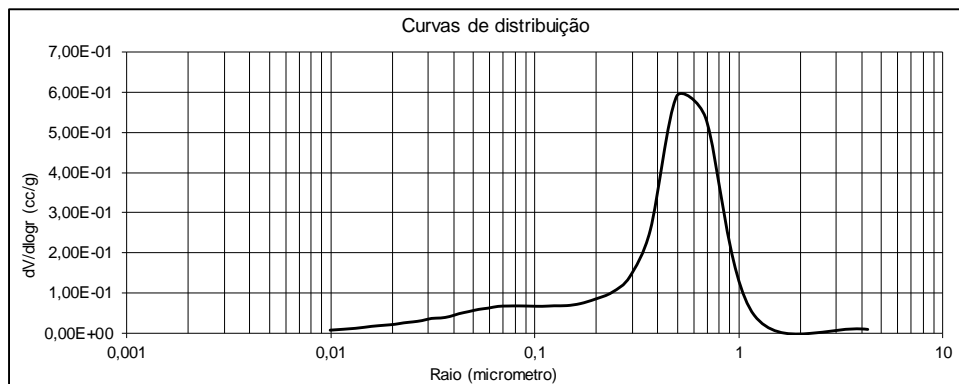
Curva de Absorção de Água (Chacota)



Massa volúmica real (kg/m³)	2990
Massa volúmica aparente (kg/m³)	1577
Porosidade aberta (vol %)	40,8
Coefficiente de capilaridade (kg/m²/h^{1/2})	1,8
Teor máximo de água (%)	24,5

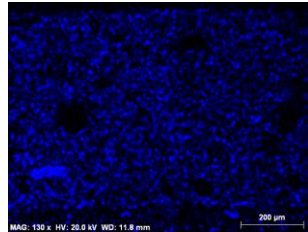
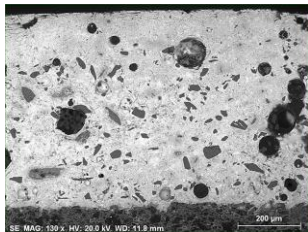
Procedimento: baseado na norma NP EN-13755.

Curvas de Porosimetria (Chacota)

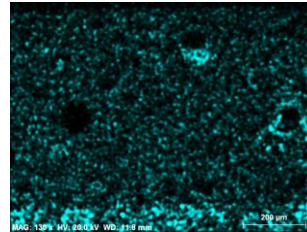


Procedimento: baseado na norma ASTM D4404-84.

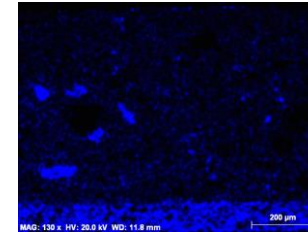
Equipamento: Porosímetro Quantachrome Autoscan



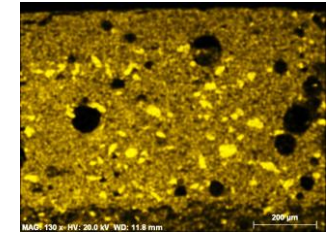
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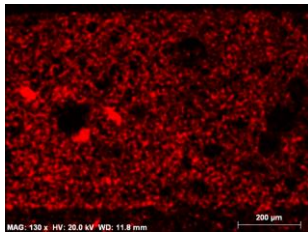
Mg



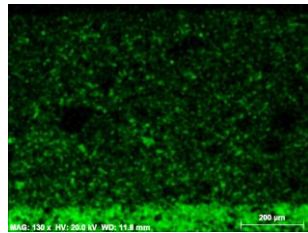
Al



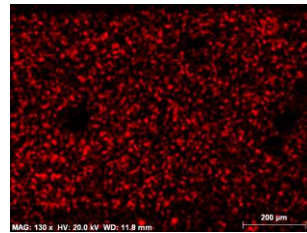
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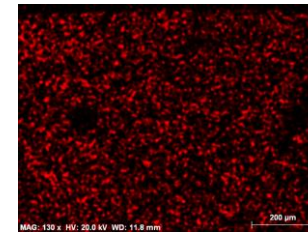
K



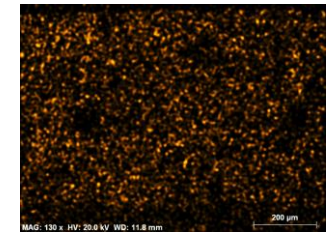
Ca



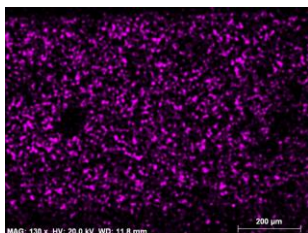
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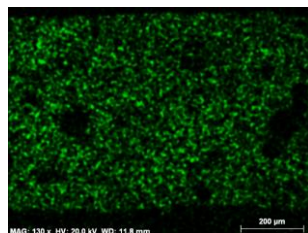
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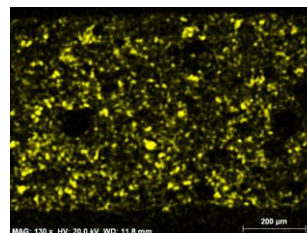
Co



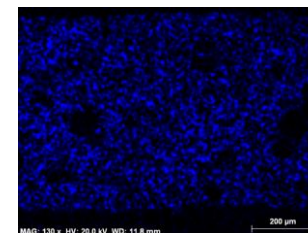
Ni



As

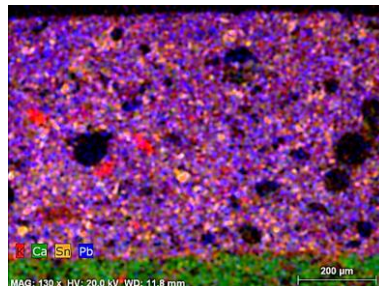
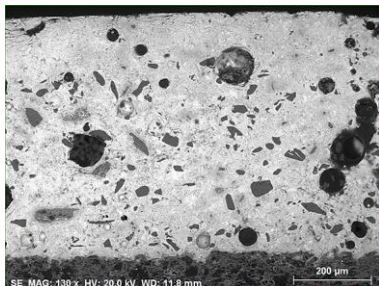


Sn

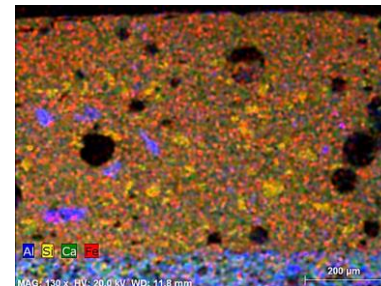


Pb

Equipamento: Microscópio eletrônico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.



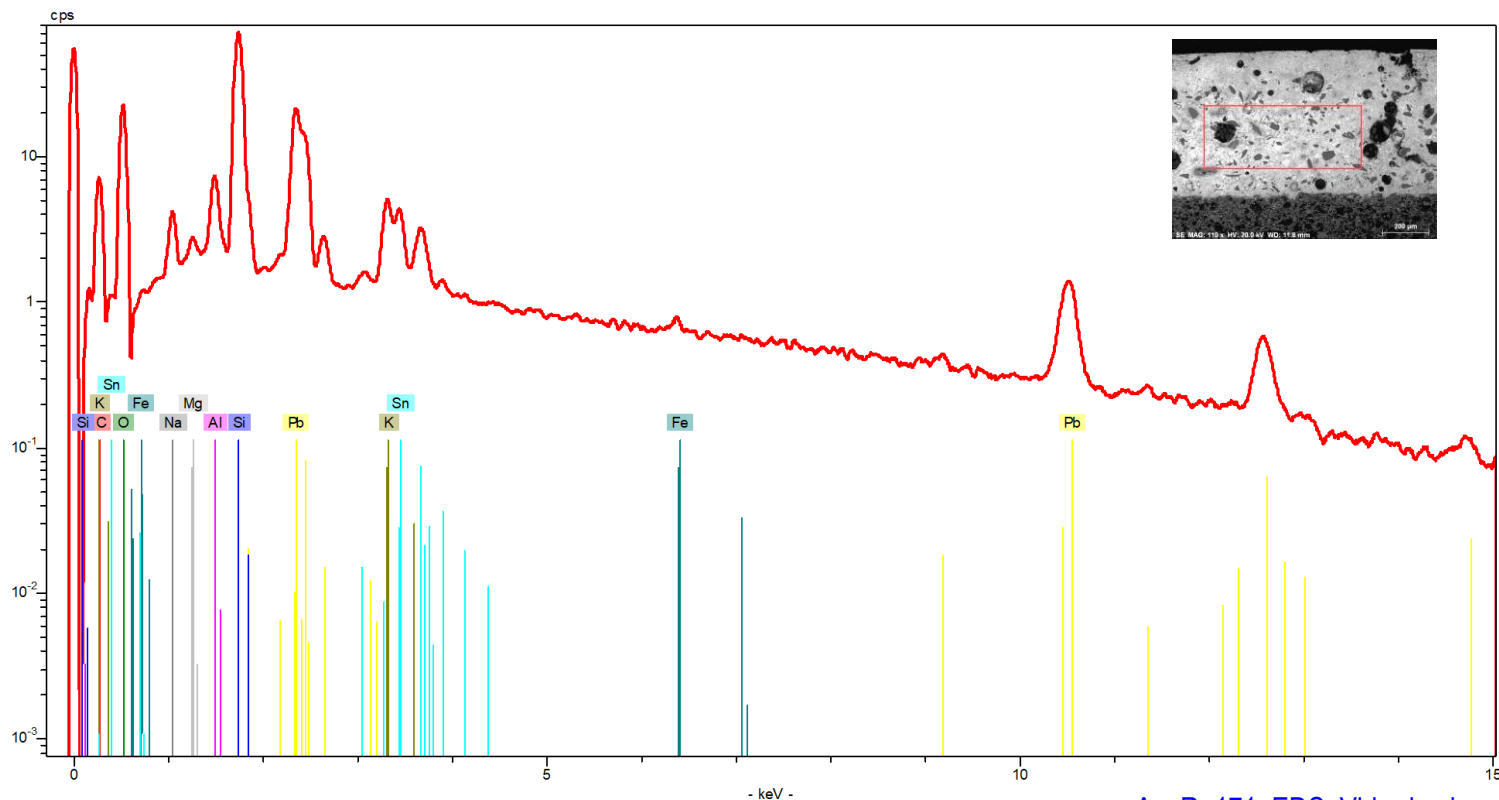
Combinação
K_Ca_Sn_Pb



Combinação
Al_Si_Ca_Fe

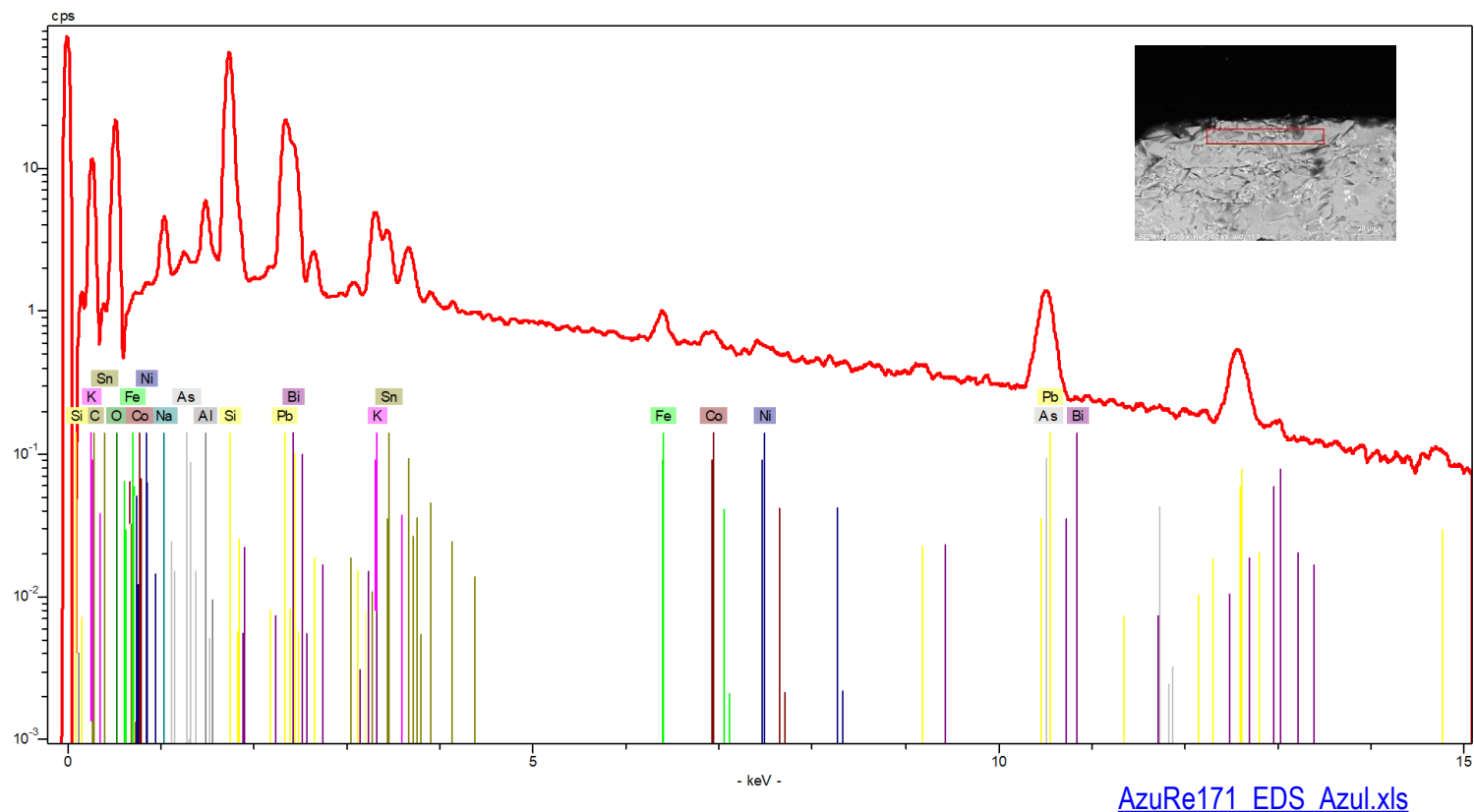
Equipamento: Microscópio eletrónico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.

VIDRADO BRANCO

[AzuRe171 EDS Vidrado.xls](#)

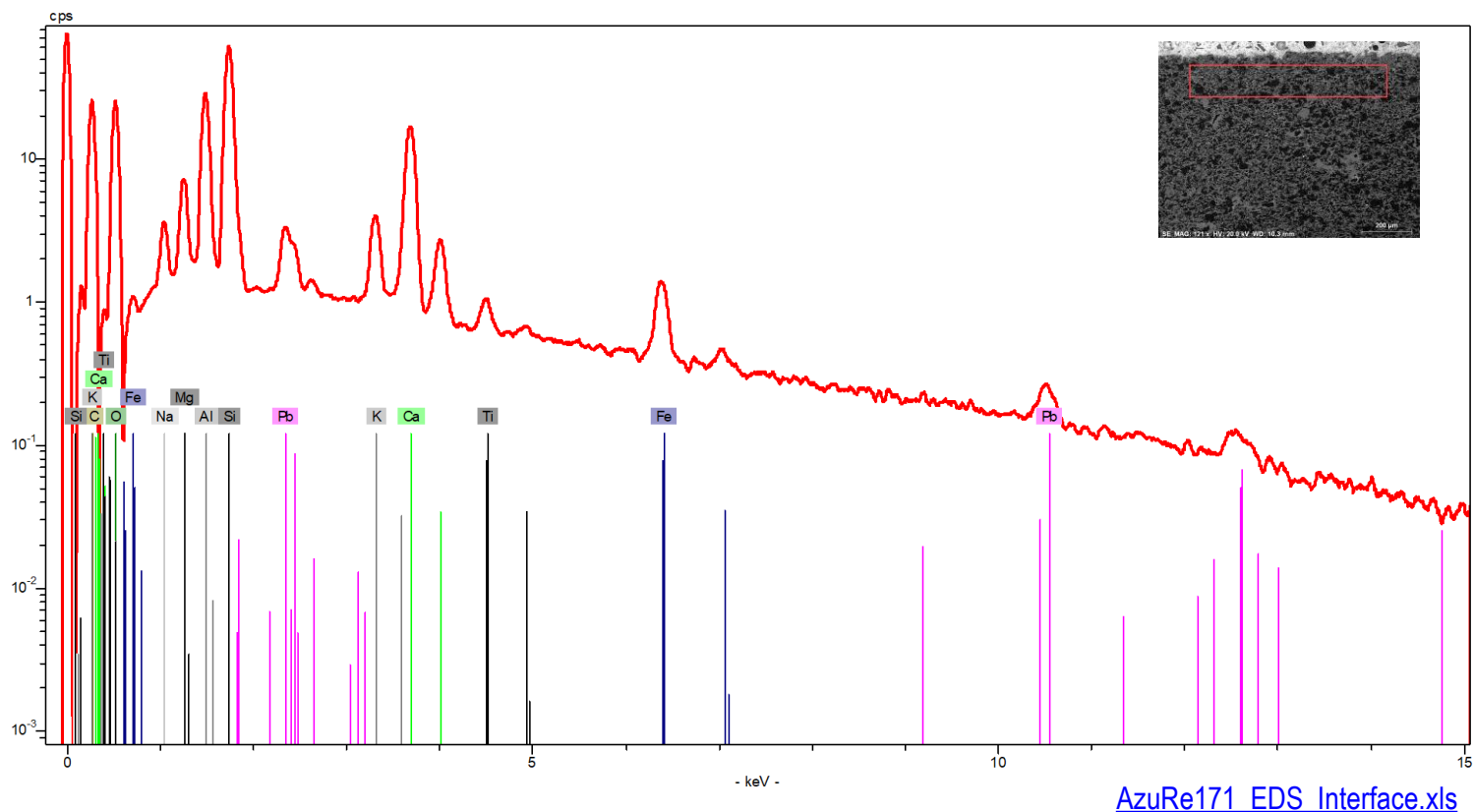
Equipamento: Microscópio eletrónico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.

PIGMENTO AZUL



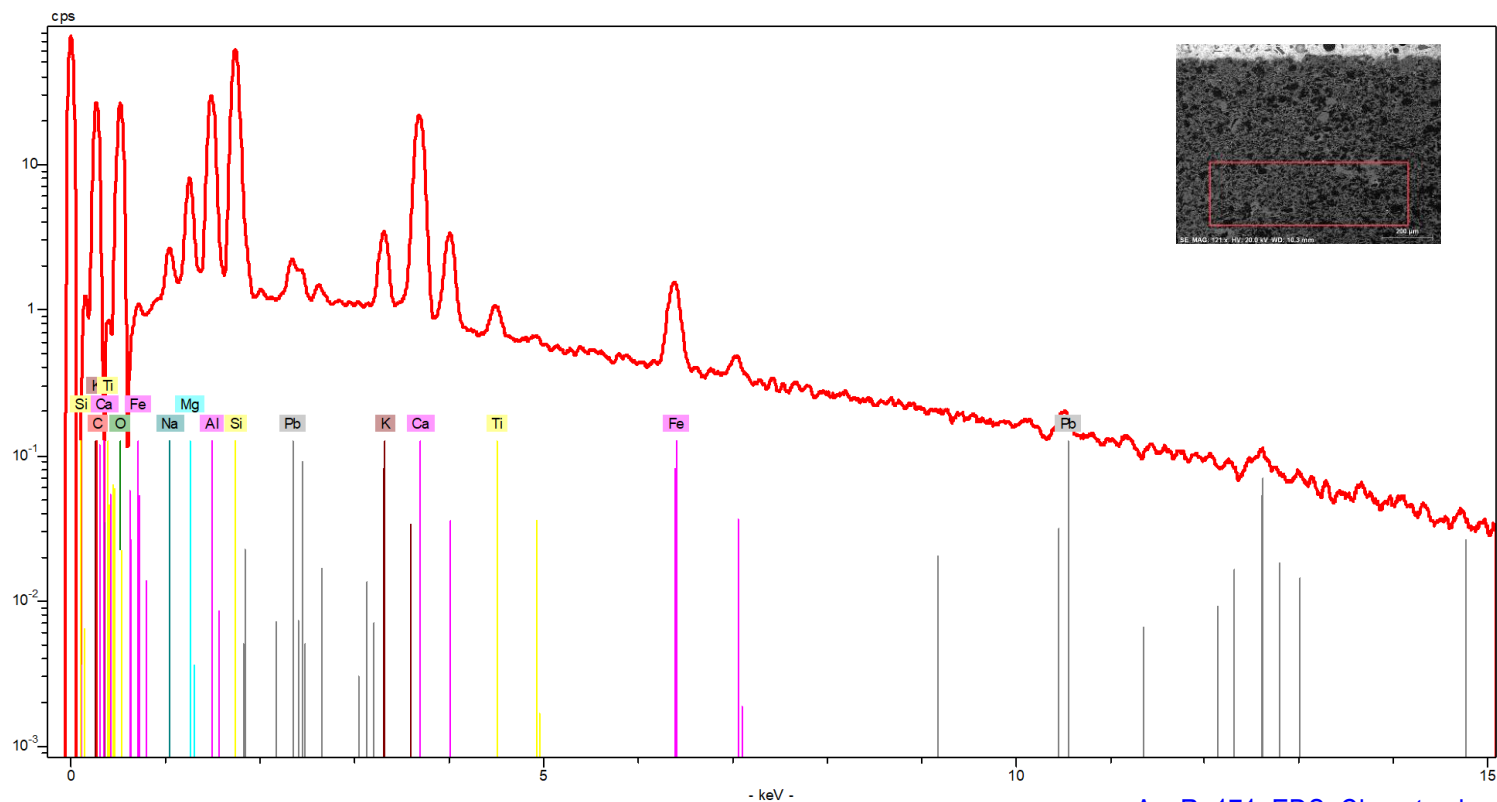
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INTERFACE



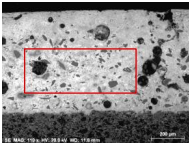
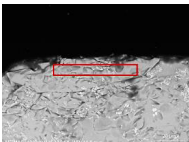
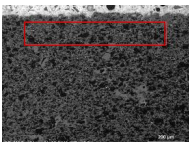
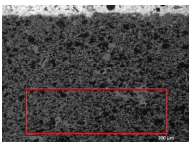
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CHACOTA

[AzuRe171_EDS_Chacota.xls](#)

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Composição química (% m/m)*

Área Analisada	Na	Mg	Al	Si	K	Ca	Ti	Fe	Co	Ni	As	Sn	Pb	Bi
 vidrado branco	2,24	0,50	2,74	28,94	3,94	--	--	0,26	--	--	--	8,67	52,71	--
 pigmento azul	2,46	--	2,07	27,73	3,84	--	--	1,08	0,73	0,62	6,27	6,80	44,05	4,35
 chacota (próximo interface)	1,91	3,68	17,11	34,56	3,64	23,85	0,72	4,11	--	--	--	--	10,42	--
 chacota	0,92	4,12	17,25	33,95	2,78	30,20	0,78	4,75	--	--	--	--	5,24	--

* - Os valores apresentados na tabela correspondem às percentagens mássicas dos elementos detetados na amostra, não considerando o teor de oxigénio e normalizados a 100% ([ver aviso](#)).

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