

# DRX

## Diffraction des Rayons X

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### Analyses physico-chimiques

Rapport d'analyse

Prestation : Staphyt

Échantillon : TI0058304

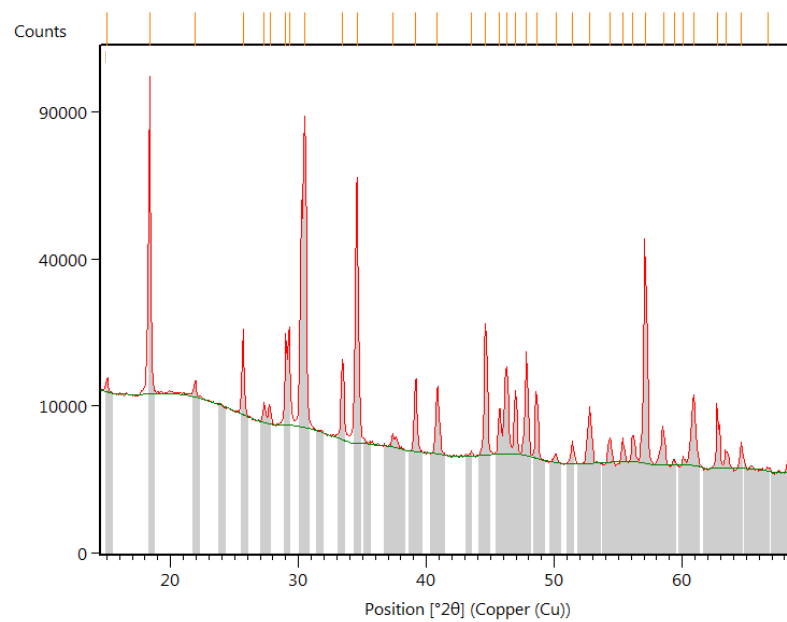
Date : 22/05/2024

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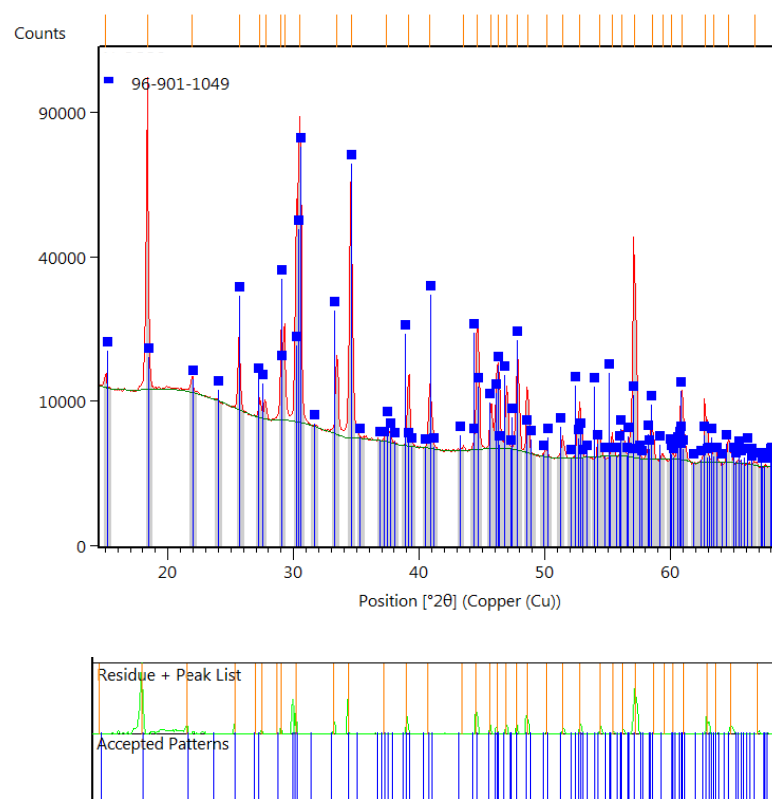
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## Diagrams

Full range

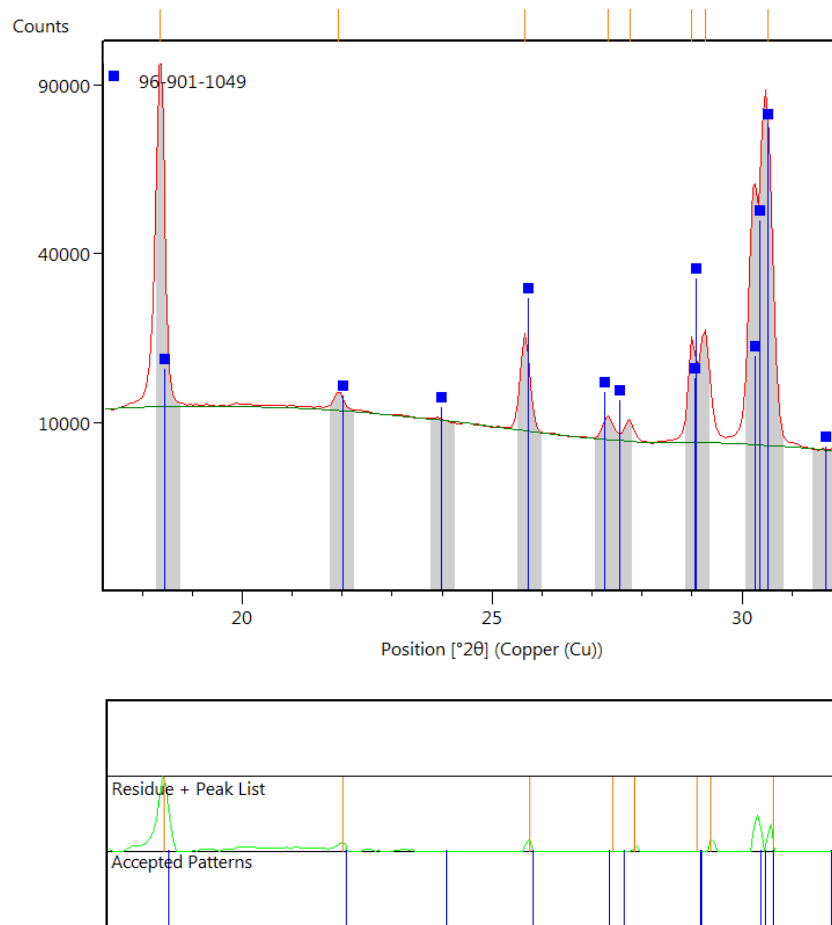


Phase identification on full range

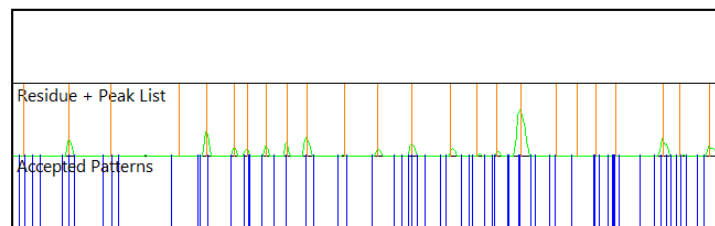
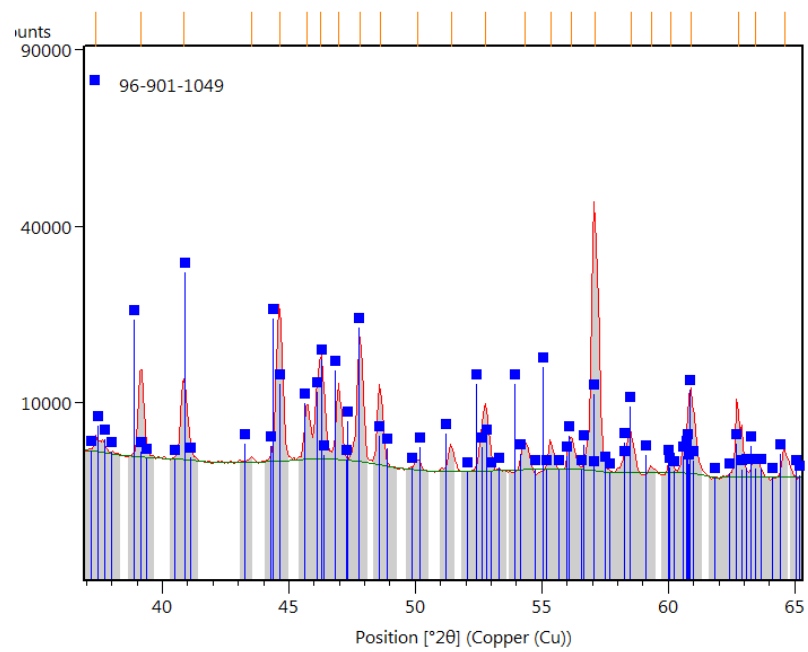


Zooms on peak of interest

Zoom 1



Zoom 2



## Peak list

No.	Pos. [ $^{\circ}2\theta$ ]	d-spacing [Å]	Height [cts]	FWHM Left [ $^{\circ}2\theta$ ]	Matched by
1	10,579	8,36262	741,78	1,3186	96-901-1049
2	15,0291	5,89502	2299,76	0,1978	96-901-1049
3	18,3574	4,83302	93765,49	0,1978	96-901-1049
4	21,9261	4,05381	2673,86	0,1978	96-901-1049
5	25,6571	3,47215	14390,25	0,1978	96-901-1049
6	27,3159	3,26495	2686,01	0,1978	96-901-1049
7	27,7526	3,21456	2506,63	0,1978	96-901-1049
8	28,9874	3,08038	14380,78	0,1978	96-901-1049
9	29,2783	3,05043	15786,88	0,1319	96-901-1049
10	30,5084	2,93019	76942,43	0,4615	96-901-1049
11	33,4451	2,67931	11569,73	0,1978	96-901-1049
12	34,5587	2,59548	59892,96	0,2637	96-901-1049
13	37,3851	2,4055	1442	0,1978	96-901-1049
14	39,1609	2,30041	9719,08	0,1978	96-901-1049
15	40,8525	2,20898	8396,34	0,2637	96-901-1049
16	43,5347	2,0789	420,94	0,1978	96-901-1049
17	44,6278	2,03049	19841,94	0,2637	96-901-1049
18	45,723	1,98437	5235,34	0,1978	96-901-1049
19	46,2569	1,9627	11592,82	0,2637	96-901-1049
20	46,9855	1,93395	7529,95	0,1978	96-901-1049
21	47,8284	1,90182	14502,67	0,2637	96-901-1049
22	48,6168	1,87281	7484,27	0,1978	96-901-1049
23	50,1091	1,82048	736,7	0,2637	96-901-1049
24	51,4249	1,77695	1970,49	0,1978	96-901-1049
25	52,7692	1,7348	6212,08	0,2637	96-901-1049
26	54,3272	1,68868	2252,17	0,3296	96-901-1049
27	55,3728	1,65924	1964,42	0,1978	96-901-1049
28	56,1526	1,63804	2621,52	0,1978	96-901-1049
29	57,1025	1,61303	40298,09	0,1978	96-901-1049
30	58,5207	1,57727	3342,08	0,2637	96-901-1049
31	59,3571	1,55703	401,19	0,2637	96-901-1049
32	60,0856	1,53988	685,99	0,1978	96-901-1049
33	60,9038	1,52114	8000,9	0,2637	96-901-1049
34	62,7719	1,48029	5594,82	0,2637	96-901-1049
35	63,4434	1,46623	1351,99	0,3296	96-901-1049
36	64,618	1,44239	1880,2	0,1978	96-901-1049
37	66,7259	1,40185	253,36	0,3296	96-901-1049
38	68,2782	1,37372	579,96	0,3296	96-901-1049
39	69,0324	1,36054	1543,2	0,1978	96-901-1049

## Identified patterns

The identifiable crystallized phase is the sodium bicarbonate or nahcolite ( $\text{NaHCO}_3$ ). However, due to the absence of elemental analysis, the data extractable from this analysis is the crystalline data of this compound:

### Compound

-reference code : 96-901-1049

-name : Nahcolite

-formula :  $\text{NaHCO}_3$

-system : Monoclinic

-space group :  $P2_1/c$  (14)

$a = 3.51 \text{ \AA}$ ,  $b = 9.71 \text{ \AA}$ ,  $c = 8.05 \text{ \AA}$ ,  $\beta = 111.85^\circ$ ,  $V = 264.7 \text{ \AA}^3$

## Corresponding literature

-Sharma, B. D., *Sodium bicarbonate and its Hydrogene Atom*, Acta Crystallographica (1965) 18, p. 818-819.