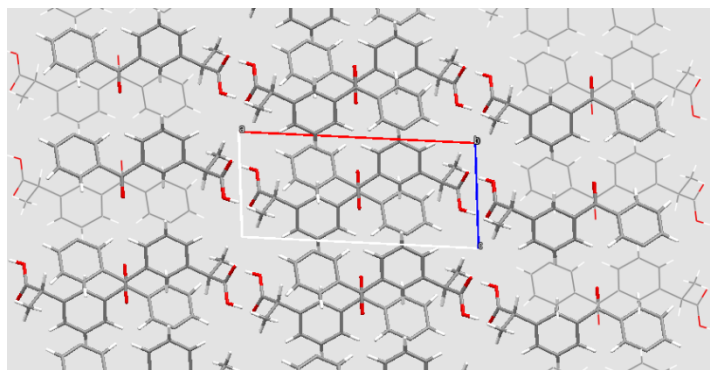
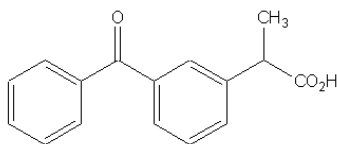
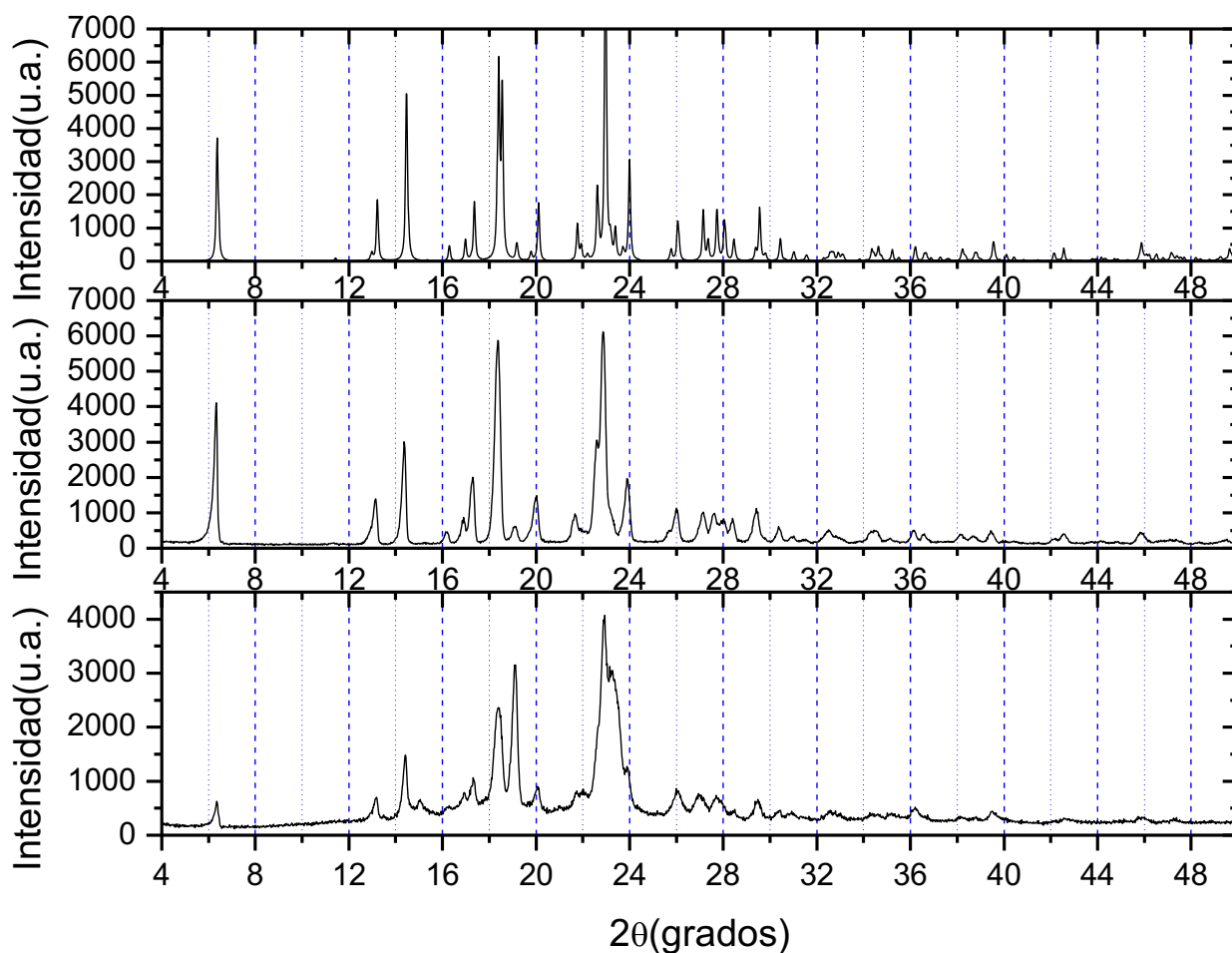


1. Granulados y Comprimidos de Ketoprofeno



Identifier	KEMRUP
Literature Reference	P.Briard, J.C.Rossi, <i>Acta Crystallogr., Sect. C: Cryst. Struct. Commun.</i> (1990), 46 , 1036
Formula	C ₁₆ H ₁₄ O ₃
Compound Name	2-(3-Benzoylphenyl)propionic acid
Synonym	Ketoprofen
Space Group	P -1
Cell Lengths	a 13.893(8) b 7.741(3) c 6.136(2)
Cell Angles	α 89.61(3) β 94.56(4) γ 88.78(4)
Cell Volume	657.639
Z, Z'	Z : 2 Z' : 0
R-Factor (%)	6.61
Disorder	

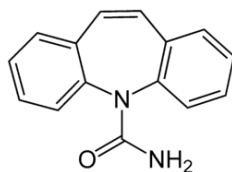


La figura 1 corresponde a una referencia de ketoprofeno, la figura 2 corresponde a granulado de ketoprofeno y la figura 3 corresponde a comprimido de ketoprofeno, que incluye excipientes.

Preguntas:

1. ¿El granulado demuestra tener el polimorfo de ketoprofeno según referencia?
2. ¿El comprimido demuestra tener el polimorfo de ketoprofeno según referencia?
3. Si no se tuviera la referencia de ketoprofeno, cuál sería el procedimiento para confirmar que se trata de una muestra monofásica.

2. Polimorfos de Carbamazepina



Comparison of the Four Anhydrous Polymorphs of Carbamazepine and the Crystal Structure of Form I

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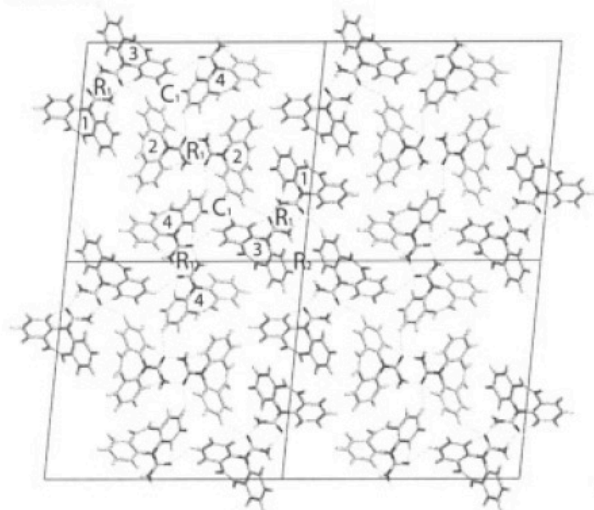
Table 1. Nomenclature of the Four CBZ Polymorphs^a

Year	Reference	Triclinic	Trigonal	<i>P</i> -Monoclinic	<i>C</i> -Monoclinic	Method of Confirmation
1968	13	I	—	III	—	Melting behavior
1975	14	C ₃	C ₂	C ₁	—	PXRD, IR
1981	15,16	—	—	Monoclinic	—	Crystal structure
1984	17	III	II	I	—	PXRD, DSC
1984	18	III	II	I	—	PXRD, DSC
1986	19	I	II, IV	III	—	PXRD, DSC
1986	20	α	—	β	—	PXRD, DSC
1987	21	I	—	III	II ^b	PXRD, DSC
1987	22	—	α , Trigonal	β	—	Trigonal structure, PXRD, DSC, IR
1991	24	I	—	III	—	DSC, preparation
1991	25	γ	α	β	—	Preparation
1992	26	I	—	III	—	IR, melting behavior
1996	27	I	—	III	—	PXRD
1997	28	Triclinic	—	—	—	Cell data, PXRD
2000	29	—	α	β	—	PXRD, SEM
2000	30	I	—	III	—	PXRD, DSC
2000	31	I	—	III	II ^b	PXRD, DSC, IR
2002	32	—	—	—	IV, <i>C</i> -Monoclinic	Crystal structure
	This study	I	II	III	IV	XRD, DSC, IR

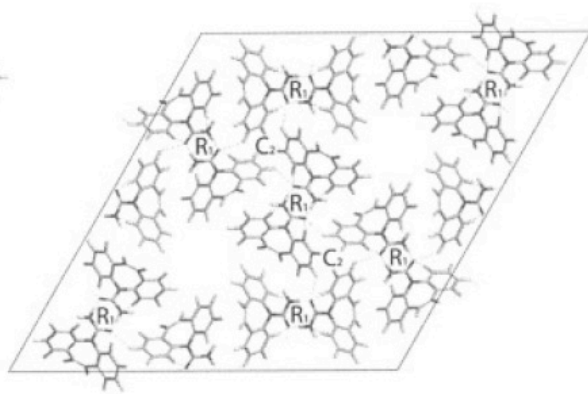
^aEach form was verified by the listed method as well as the method of preparation of each form.

^bThese forms are most similar to *C*-monoclinic CBZ, however, differences noted in the text exist.

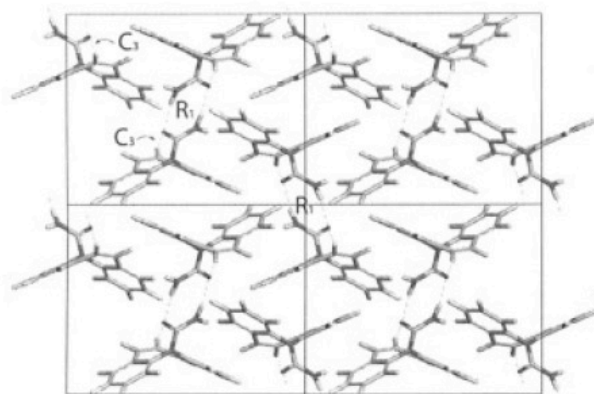
Triclinic
Form I



Trigonal
Form II



P-monoclinic
Form III



C-monoclinic
Form IV

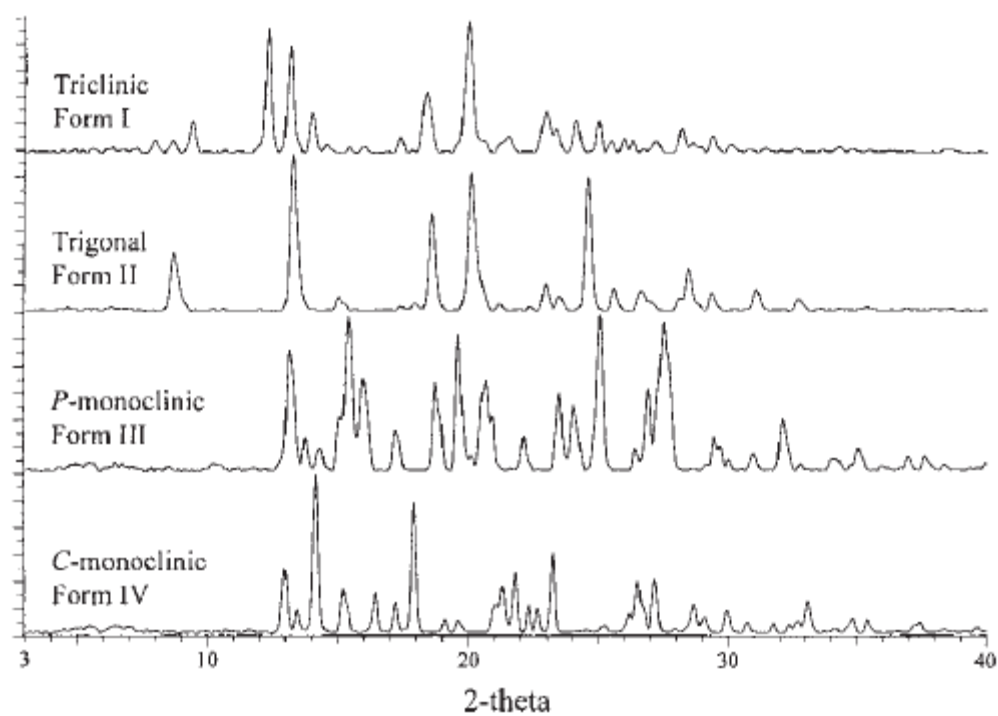
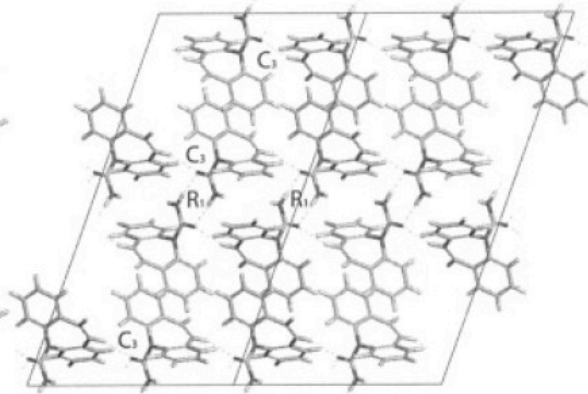
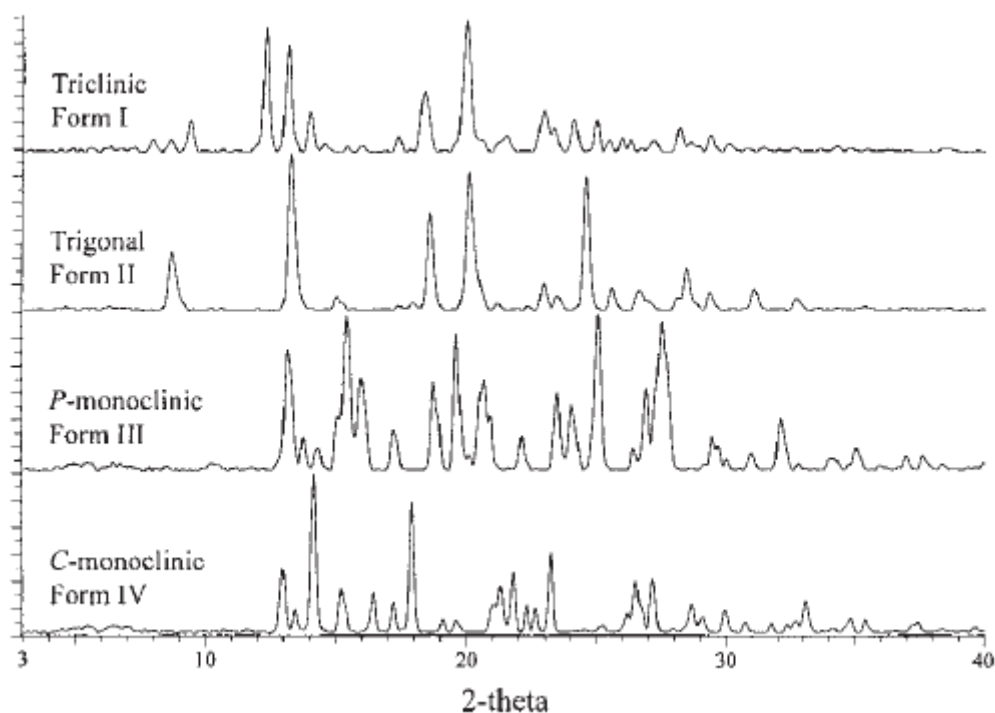
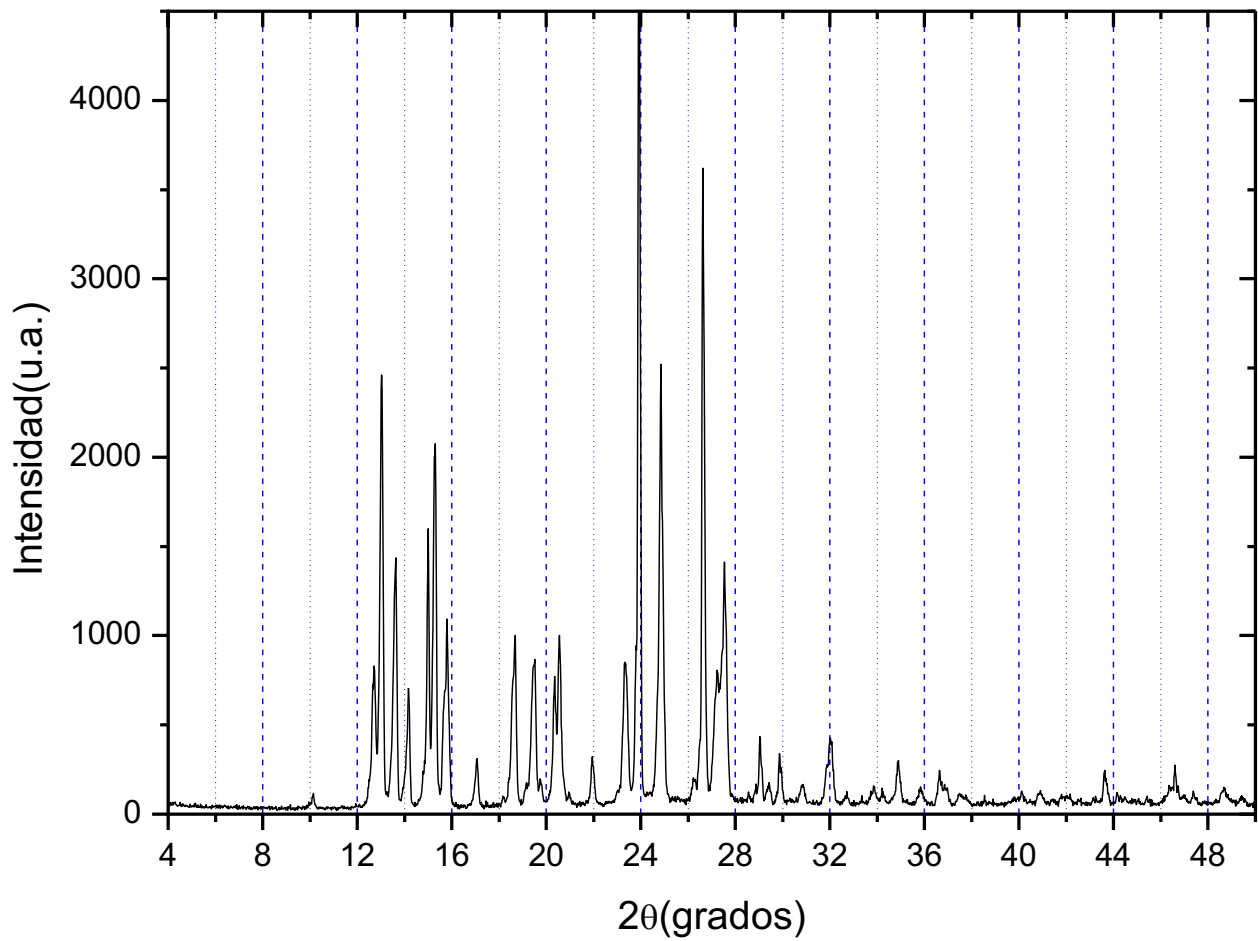


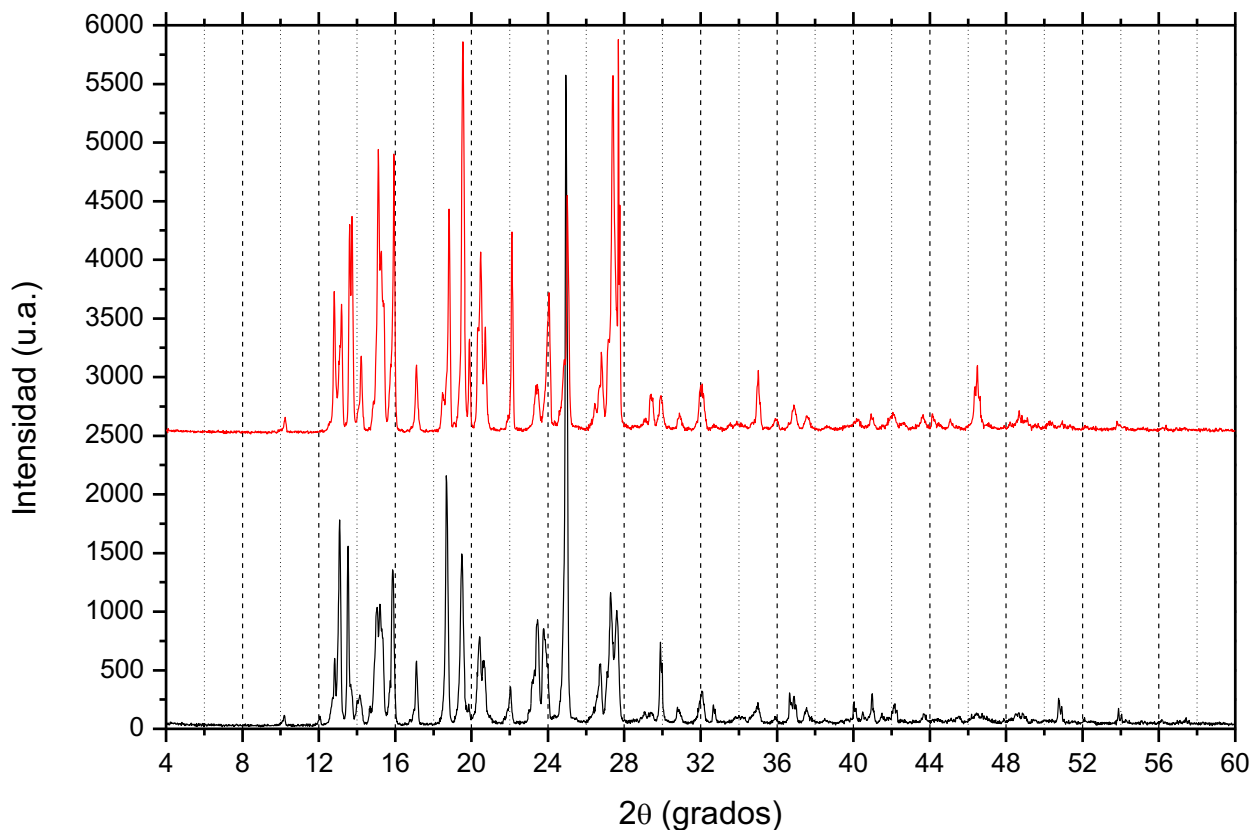
Table 2. Powder X-ray Diffraction Peak Positions and Relative Intensities of the Four Anhydrous Polymorphs of CBZ

Triclinic (Form I)		Trigonal (Form II)		<i>P</i> -Monoclinic (Form III)		<i>C</i> -Monoclinic (Form IV)	
2 θ ($^{\circ}$)	Intensity (%)	2 θ ($^{\circ}$)	Intensity (%)	2 θ ($^{\circ}$)	Intensity (%)	2 θ ($^{\circ}$)	Intensity (%)
7.92	45	8.68	57	13.14	87	12.93	51
8.63	44	13.26	100	13.71	41	13.42	29
9.37	56	15.00	20	14.26	34	14.11	100
12.28	100	18.56	64	15.03	47	15.18	35
13.15	87	20.07	86	15.36	100	16.42	31
13.98	47	21.12	14	15.93	65	17.21	27
14.52	26	22.89	24	17.17	35	17.89	79
17.40	25	23.43	18	18.69	60	19.09	17
18.39	51	24.54	82	19.56	85	19.61	16
19.99	94	25.55	23	20.56	64	21.01	26
21.48	22	26.61	20	20.85	44	21.27	35
22.92	37	28.41	33	22.07	29	21.79	43
23.30	27	29.31	20	23.45	53	22.28	25
24.07	31	31.04	19	23.99	49	22.64	23
24.95	33	32.69	12	25.00	92	23.22	51
25.44	23			26.40	24	25.21	11
25.93	24			26.87	57	26.19	18
26.27	23			27.47	90	26.49	36
27.12	20			29.44	28	27.17	38
28.15	25			30.98	18	28.71	24
29.35	19			32.09	38	29.08	17
30.05	14			35.05	22	29.99	19
				36.98	17	30.77	12
				37.63	17	31.79	11
						32.41	11
						32.73	13
						33.11	24
						34.87	14
						35.44	13
						37.45	11





caso 1)



caso 2)

Preguntas:

1. ¿Cuál es la forma cristalina que corresponde a los casos 1 y 2?
2. ¿Qué diferencia observa en las muestras incluidas en la Figura del caso 2?
3. ¿Cuál puede ser el origen en dichas diferencias?
4. ¿Qué consecuencias puede tener en el análisis las diferencias encontradas?