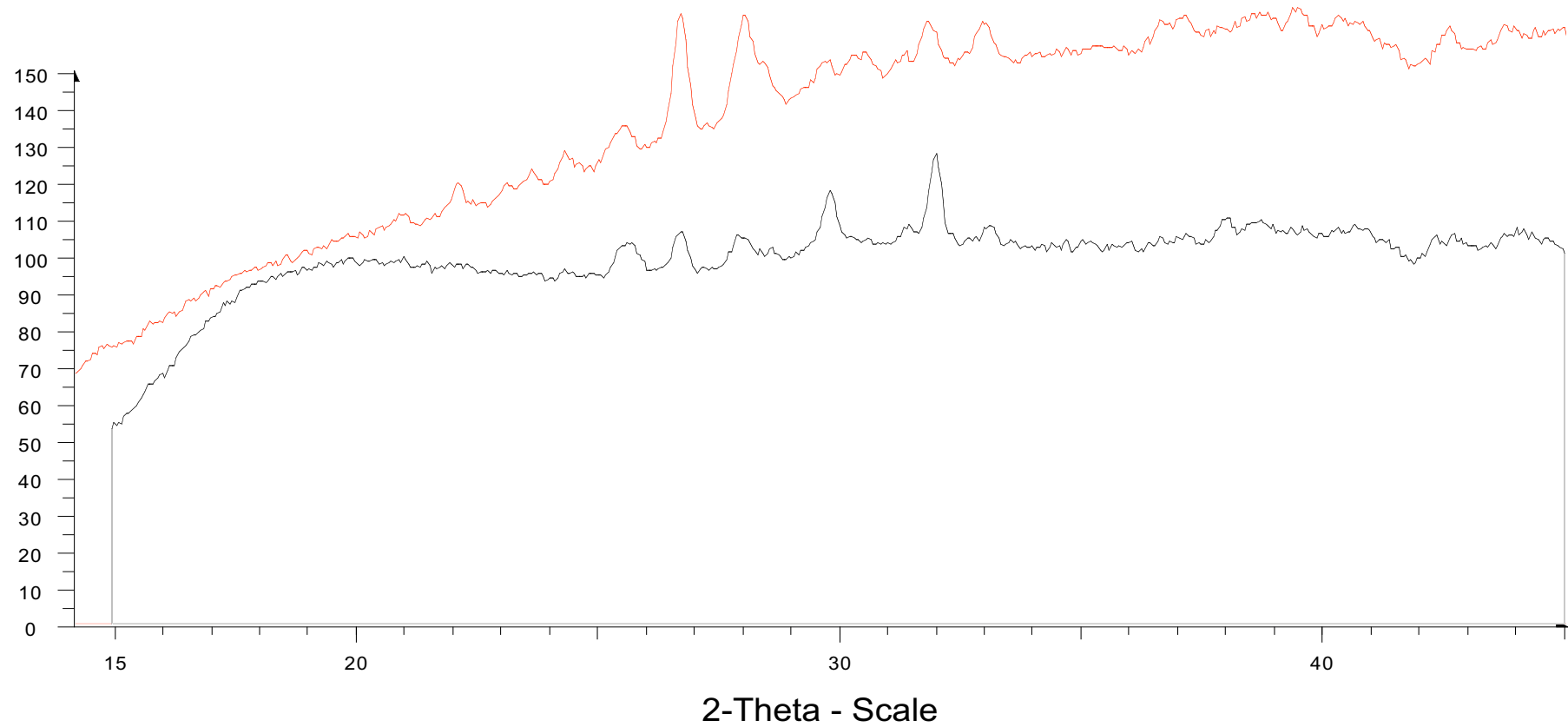




Sample ID:	S2
Zone:	Highly altered material
Material identified:	Scorodite, primary silicates primary sulfides
Type of radiation	CuK_1+K_2 = 1.54184Å
Power	40 kV x 40 mA
Type of scan	2_ (2 Omega)
Beam diameter	500 um
2_ range	6° - 21.5°
Time	20 minutes

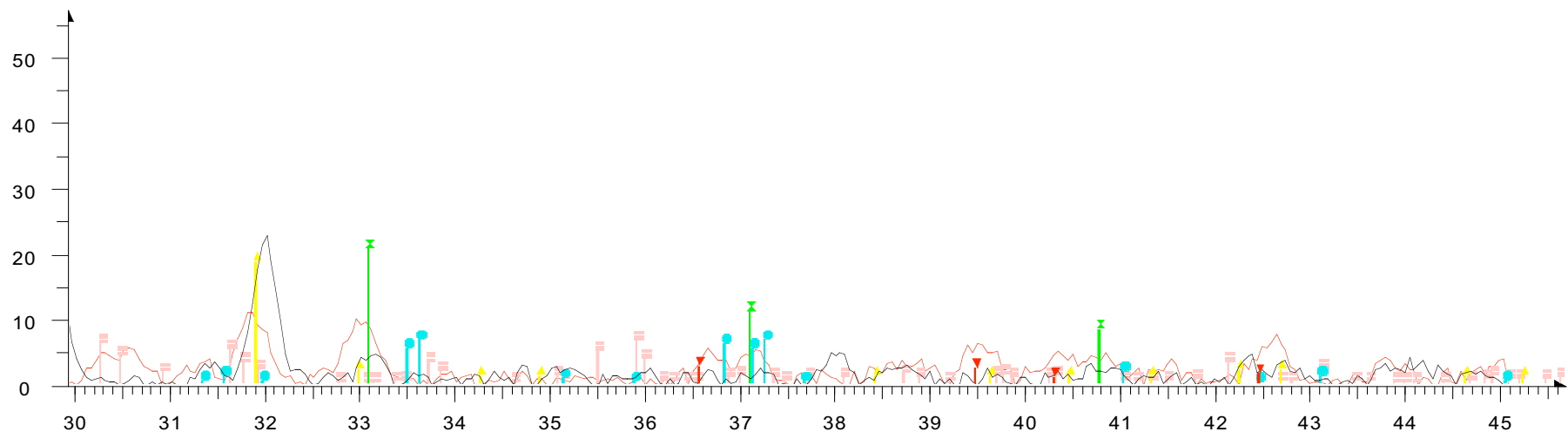
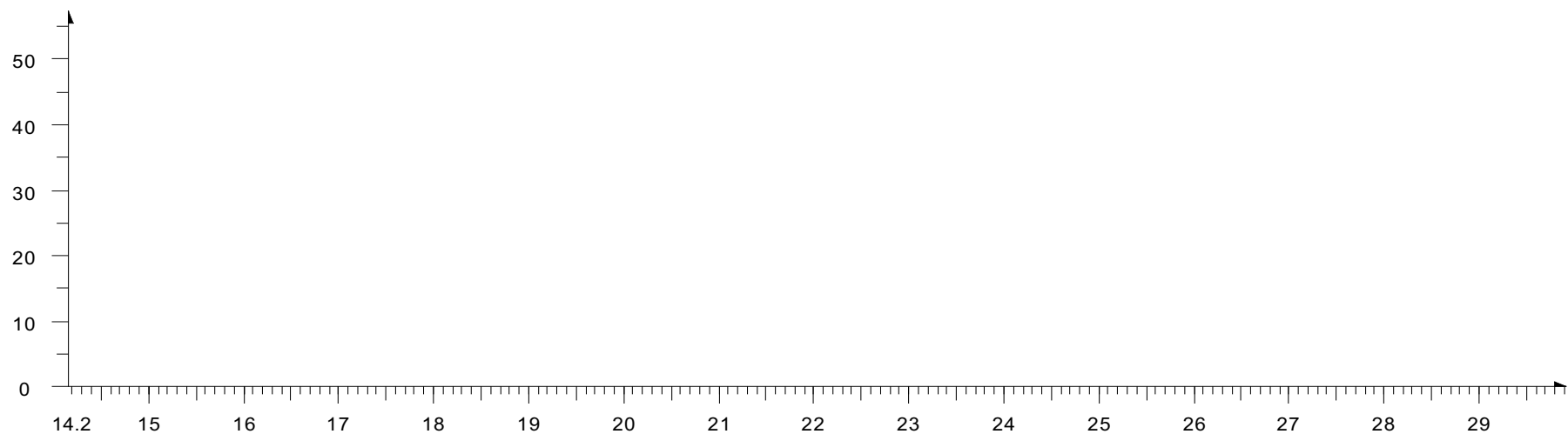
SAMPLE/ DIFFRACTOGRAM INVENTORY

Sample ID	Spot number	Zone	Notes
S2	1	001	gypsum
S2	2	001	gypsum
S2	3	001	gypsum
S2	4	001	black
S2	5	001	gypsum
S2	6	001	gypsum
S2	7	001	gypsum
S2	8	002	reddish brown
S2	9	002	reddish brown
S2	10	002	reddish brown
S2	11	002	reddish brown
S2	12	003	reddish brown
S2	13	003	reddish brown
S2	14	003	reddish brown


Sample ID	Spot number	Zone	Notes
S2	13	003	reddish brown
S2	14	003	reddish brown
S2	15	004	reddish brown
S2	16	004	reddish brown
S2	17	004	reddish brown
S2	18	005	yellow green
S2	19	005	yellow green
S2	20	005	yellow green
S2	21	005	yellow green
S2	22	005	yellow green
S2	23	001	reddish brown
S2	24	001	lath
S2	25	001	lath
S2	26	001	reddish brown




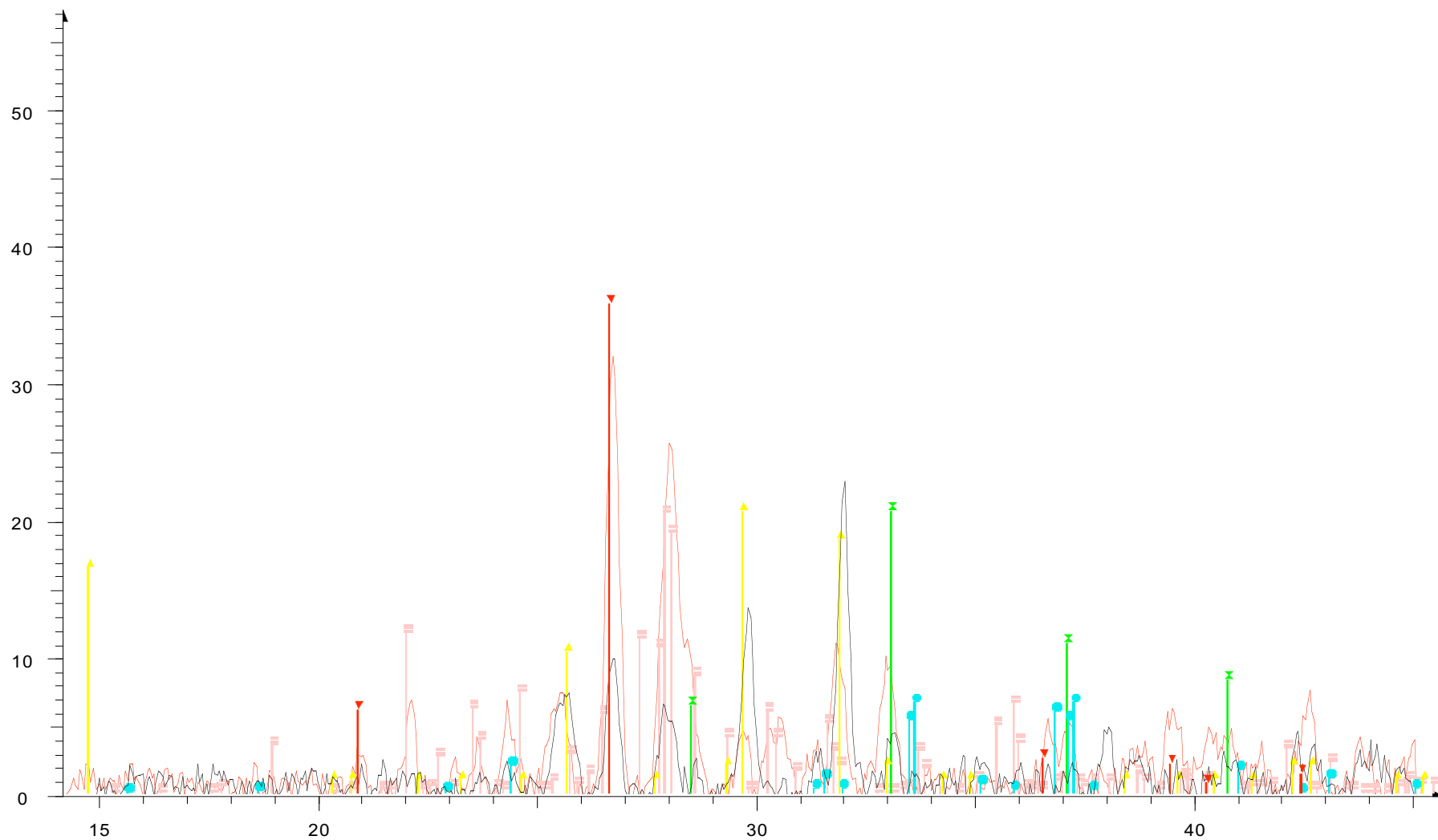
 File: S2 all8min 06.raw
 Y + 15.0 mm - File: S2 all8min 07.raw



2-Theta - Scale

-  File: S2 all8min 06.raw
-  File: S2 all8min 07.raw
-  85-0796 (C) - Quartz - SiO₂
-  86-1705 (C) - Anorthite - Ca(Al₂Si₂O₈)
-  42-1340 (*) - Pvrite - FeS₂
-  41-0224 (I) - Bassanite. svn - CaSO₄·0.5H₂O

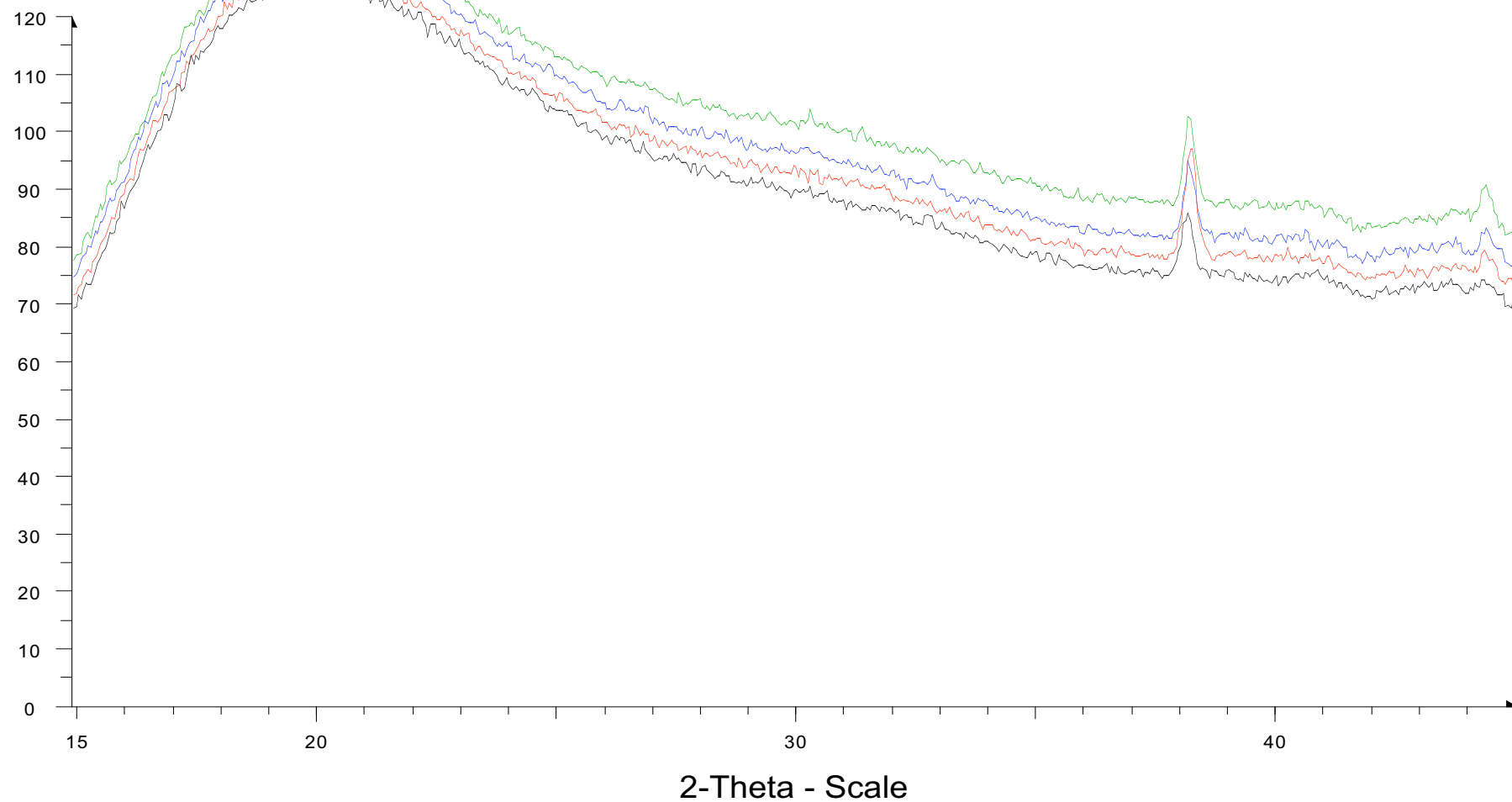
 42-1320 (I) - Arsenopvrite - FeAsS



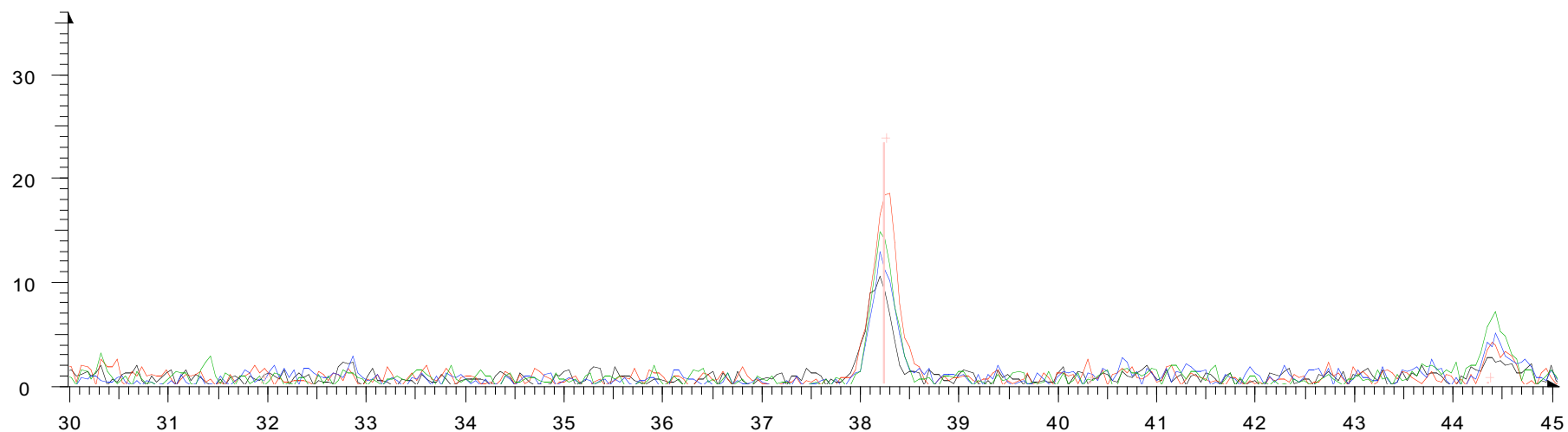
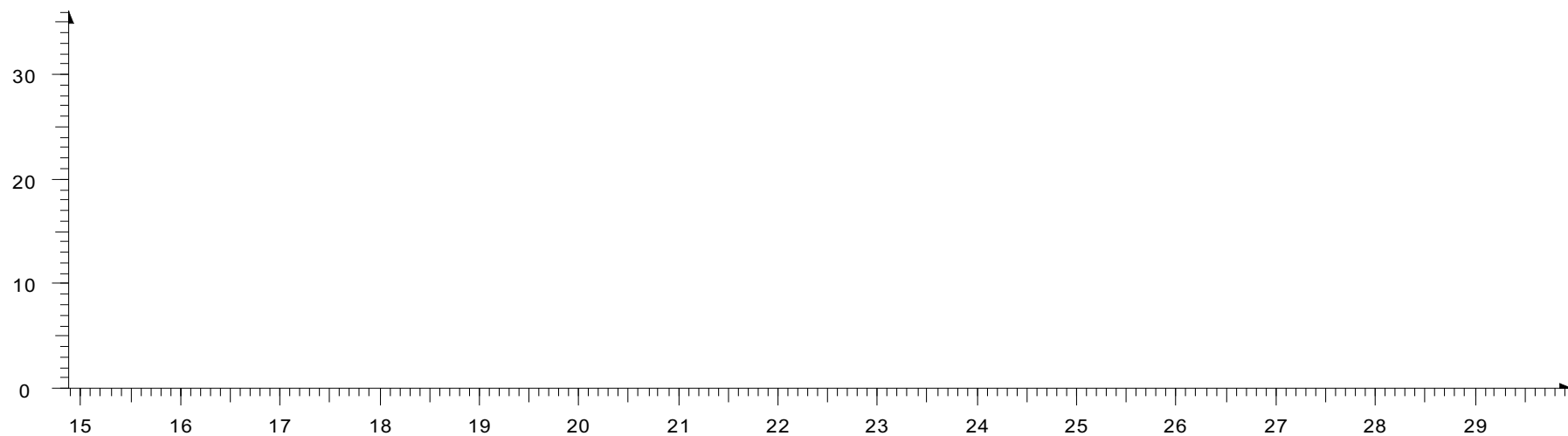
2-Theta - Scale

- File: S2 all8min 06.raw
- File: S2 all8min 07.raw
- 85-0796 (C) - Quartz - SiO_2
- 86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$
- 42-1340 (*) - Pvrite - FeS_2
- 41-0224 (I) - Bassanite. svn - $\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$






42-1320 (I) - Arsenopvrite - FeAsS

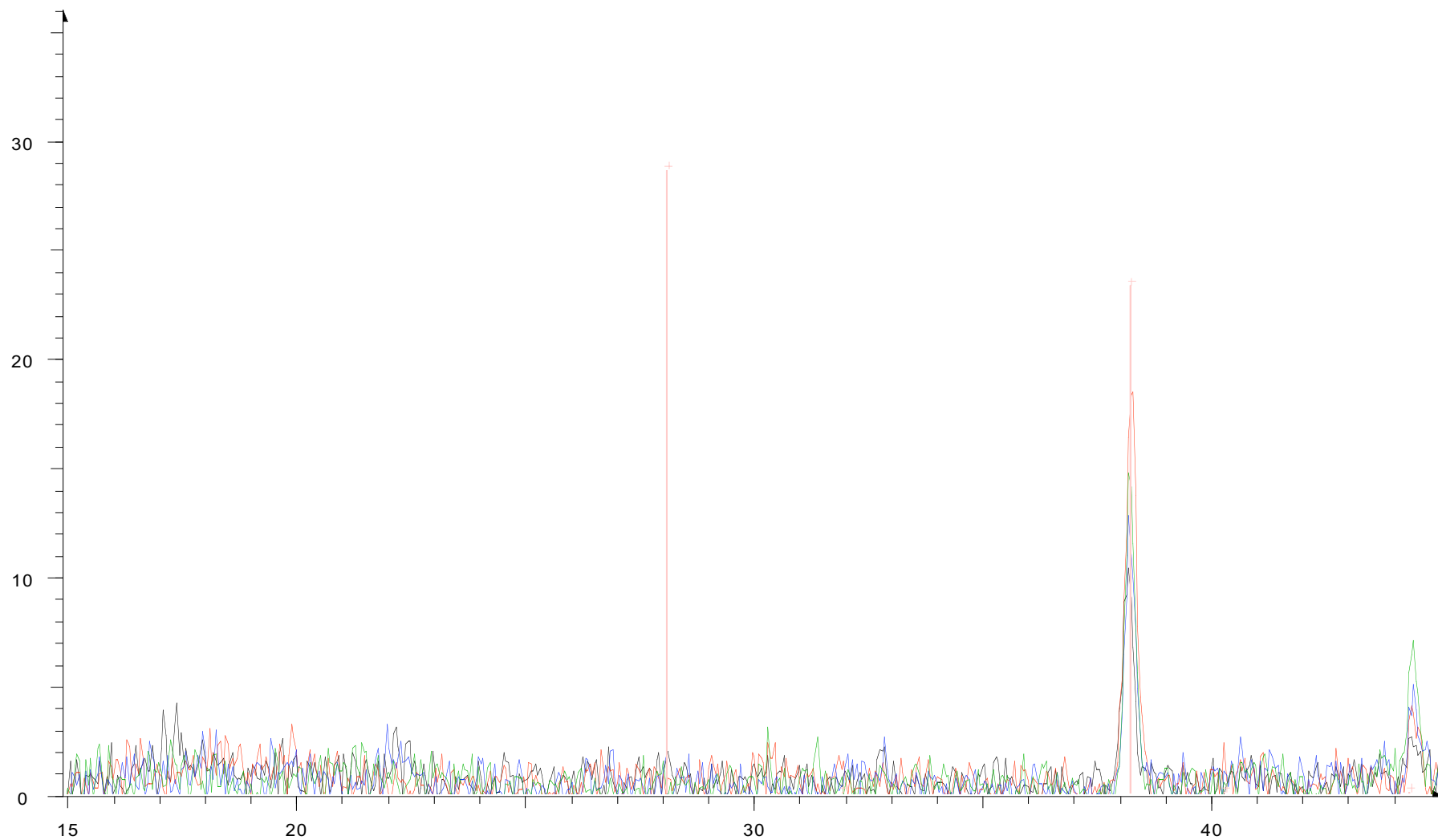


- Y + 12.0 mm - File: S2 all8min 01.raw
- Y + 15.0 mm - File: S2 all8min 02.raw
- Y + 18.0 mm - File: S2 all8min 03.raw
- Y + 21.0 mm - File: S2 all8min 04.raw

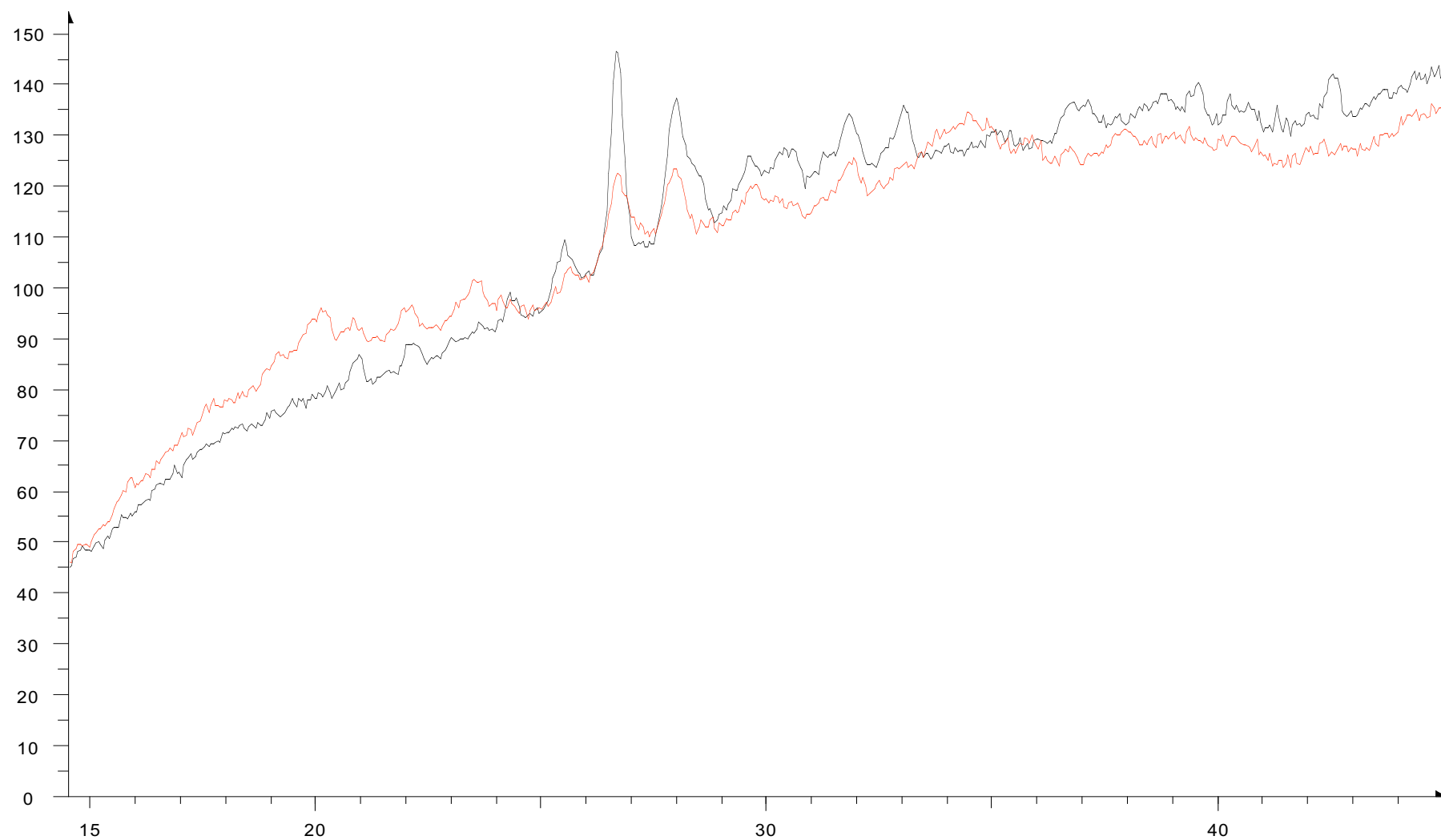


2-Theta - Scale

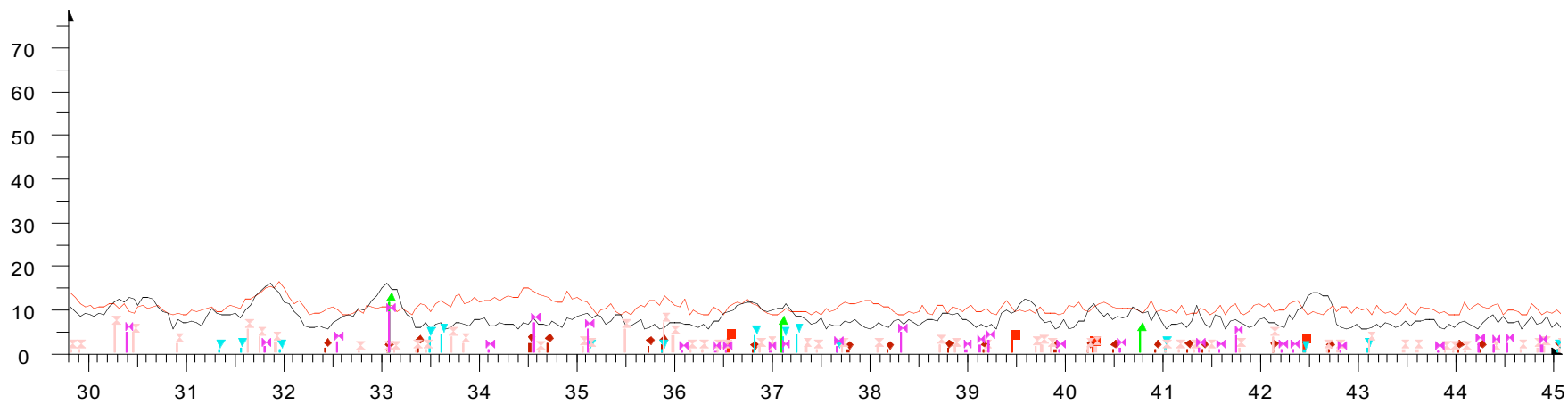
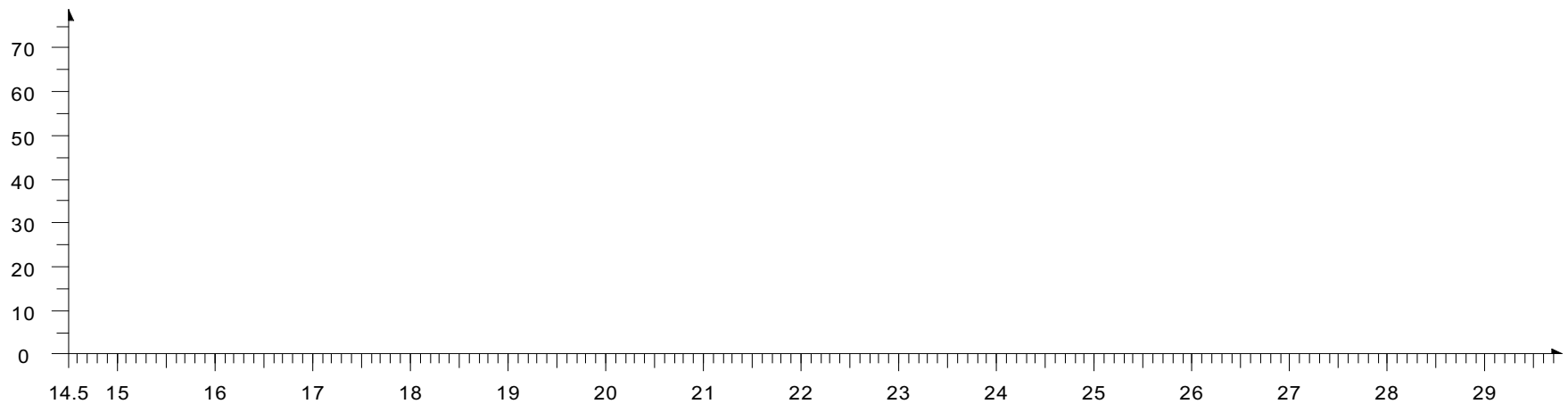
-  File: S2 all8min 01.raw
-  File: S2 all8min 02.raw
-  File: S2 all8min 03.raw
-  File: S2 all8min 04.raw
-  88-2110 (C) - Boehmite. svn - AlO(OH.33D.67))



- File: S2 all8min 01.raw
- File: S2 all8min 02.raw
- File: S2 all8min 03.raw
- File: S2 all8min 04.raw
- 88-2110 (C) - Boehmite. svn - AlO(OH.33D.67))

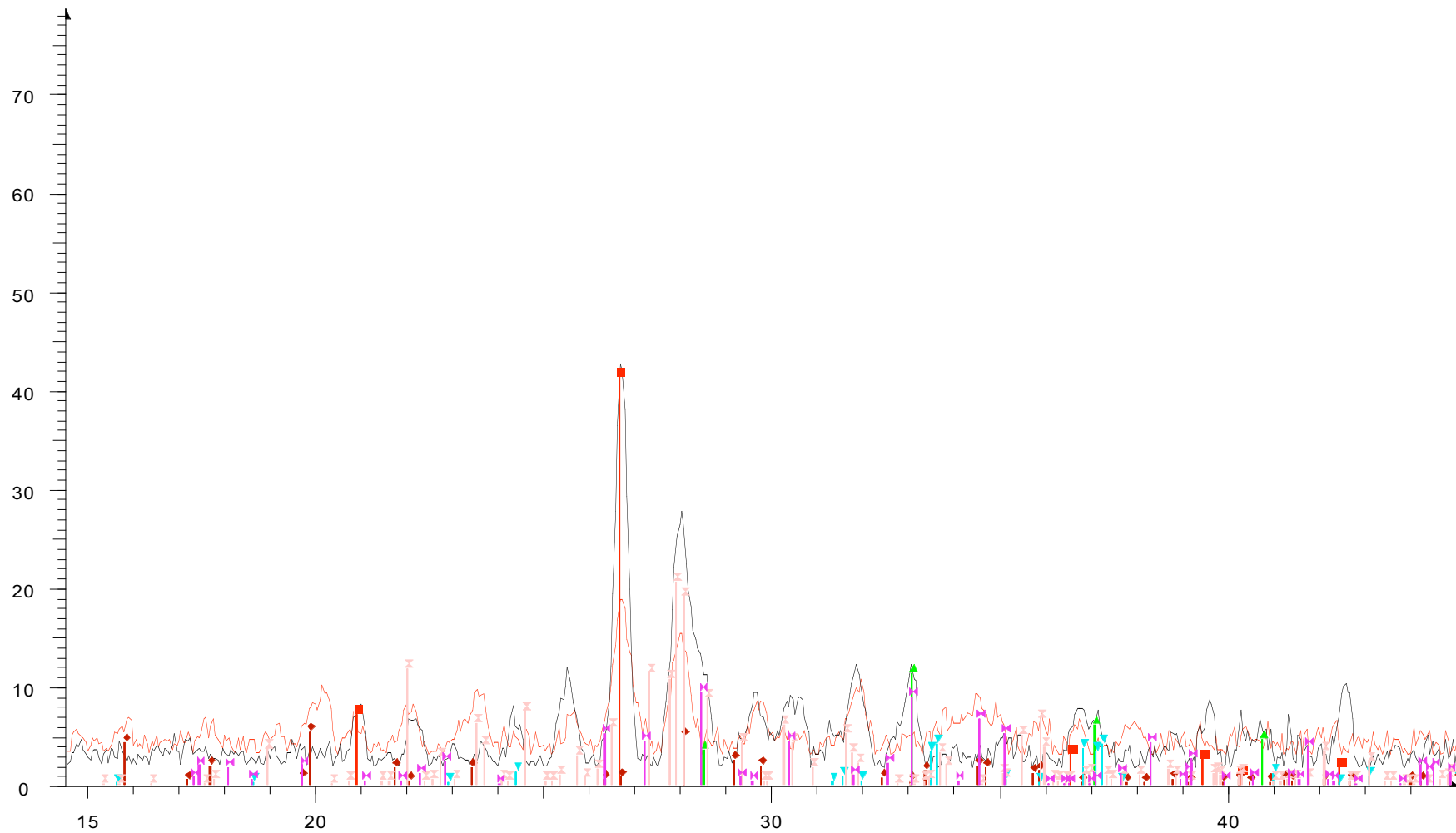


File: S2_all8min_23.raw
File: S2_all8min_26.raw



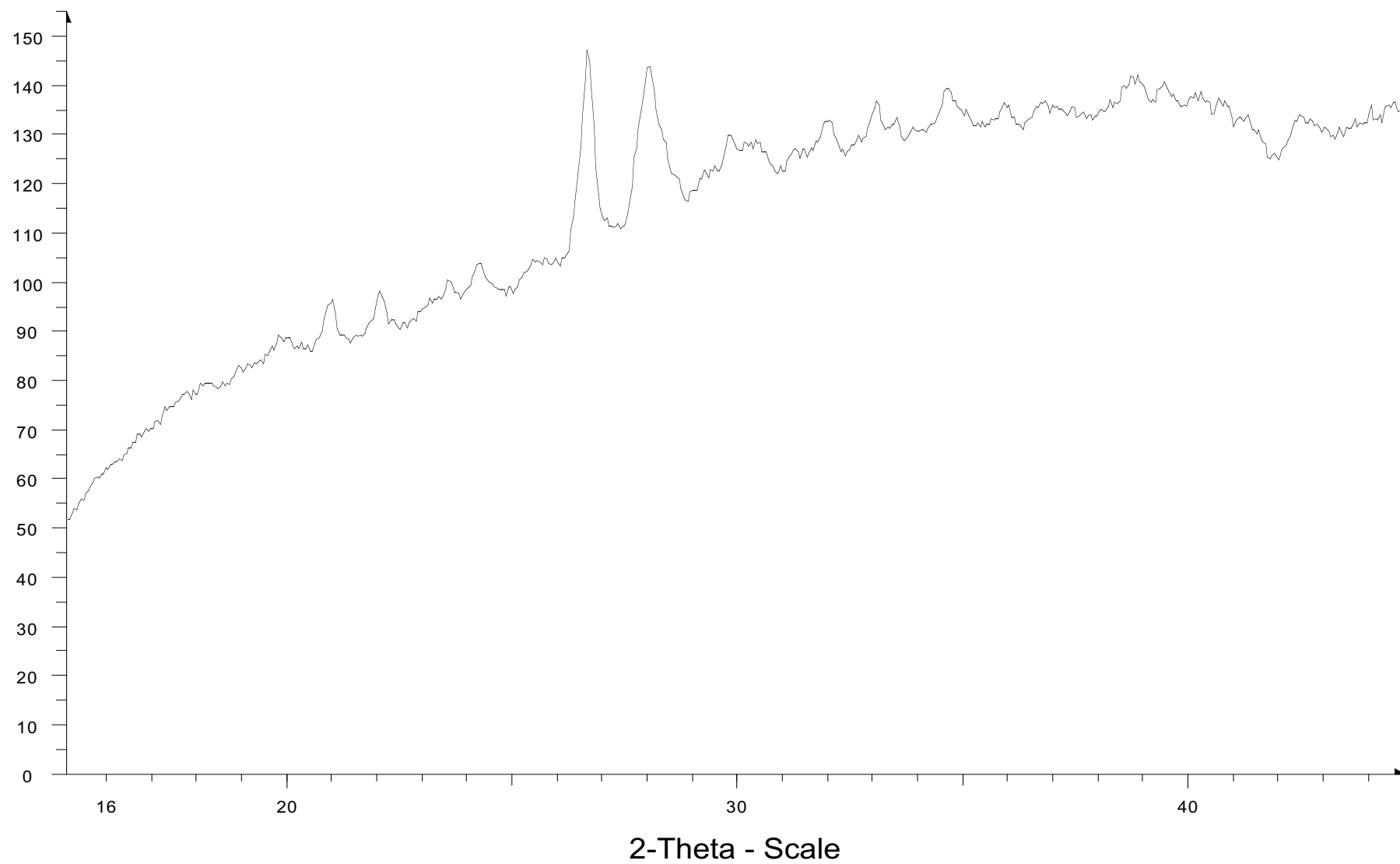
2-Theta - Scale


- Y + 4.0 mm - File: S2_all8min_23.raw
- Y + 6.0 mm - File: S2_all8min_26.raw
- 85-0796 (C) - Quartz - SiO₂
- 37-0468 (*) - Scorodite - FeAsO₄·2H₂O
- 42-1340 (*) - Pprite - FeS₂
- 42-1320 (I) - Arsenopprite - FeAsS
- 86-1705 (C) - Anorthite - Ca(Al₂Si₂O₈)
- 73-1135 (C) - Amphibole - Al_{3.2}Ca_{3.4}Fe_{4.0}K_{0.6}Mg_{6.0}Na_{1.0}Si_{12.8}O₄₄(OH)₄

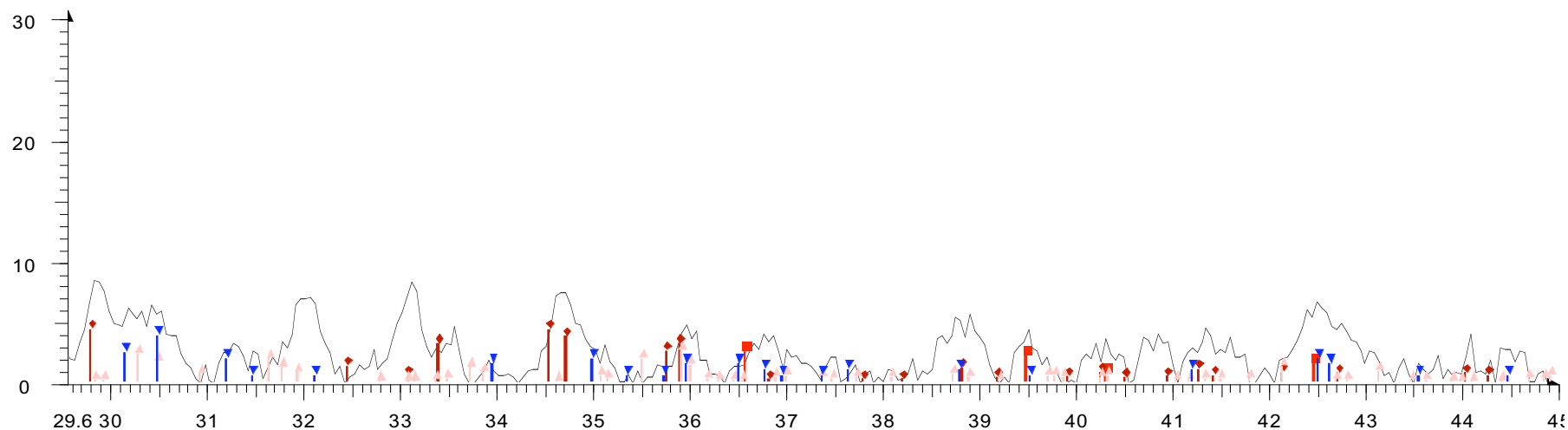
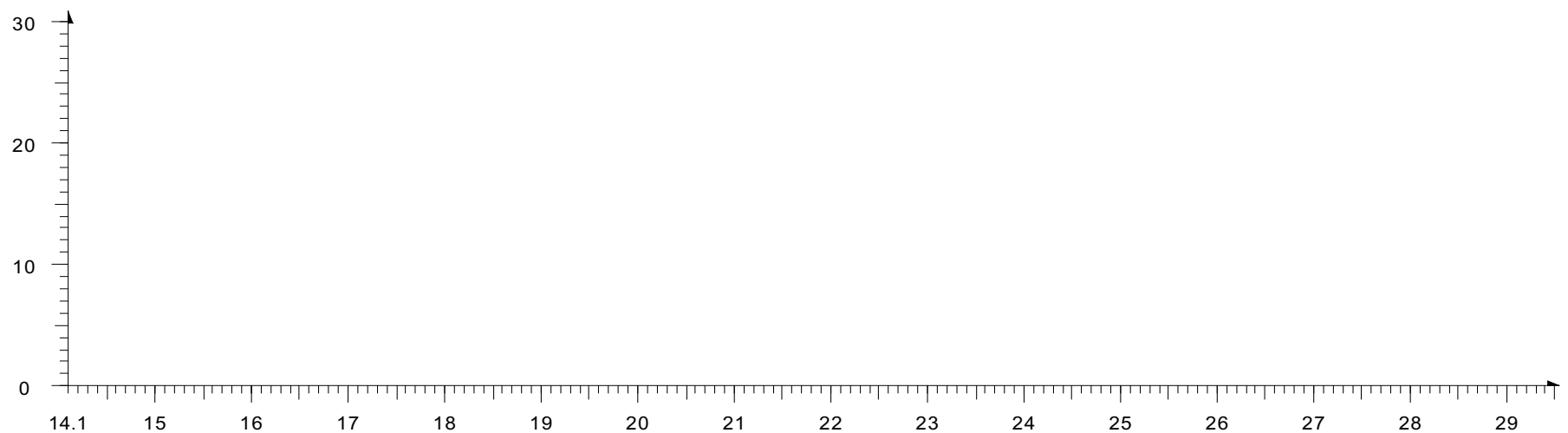


2-Theta - Scale






- Y + 4.0 mm - File: S2 all8min 23.raw
- Y + 6.0 mm - File: S2 all8min 26.raw
- 85-0796 (C) - Quartz - SiO_2
- 37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
- 42-1340 (*) - Pprite - FeS_2
- 42-1320 (I) - Arsenopprite - FeAsS
- 86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$
- 73-1135 (C) - Amphibole - $\text{Al}_3.2\text{Ca}_3.4\text{Fe}_4.0\text{K}_6.0\text{Na}_1.0\text{Si}_{12.8}\text{O}_{44}(\text{OH})_4$

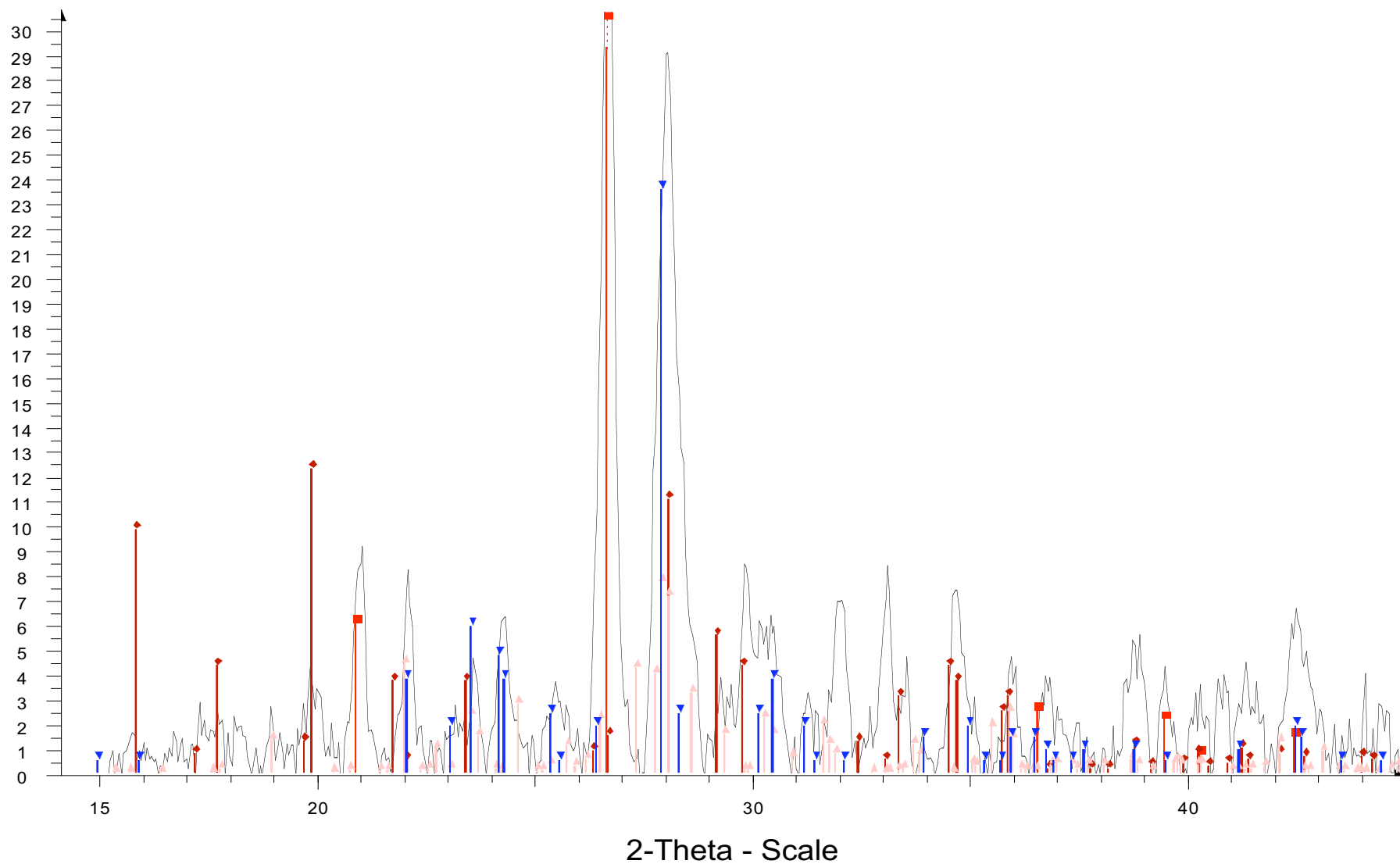


 File: S2 all8min 11.raw

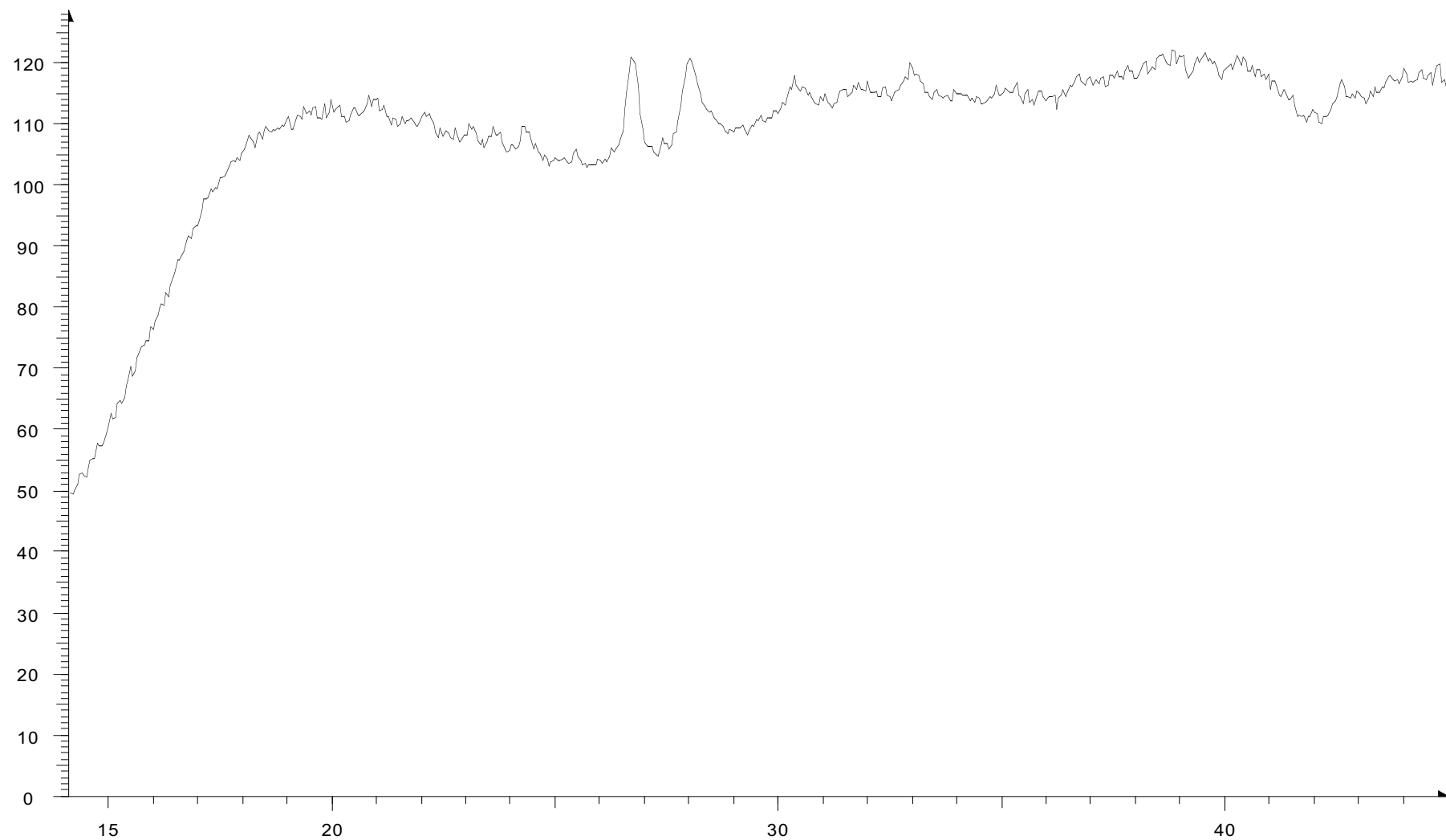



2-Theta - Scale

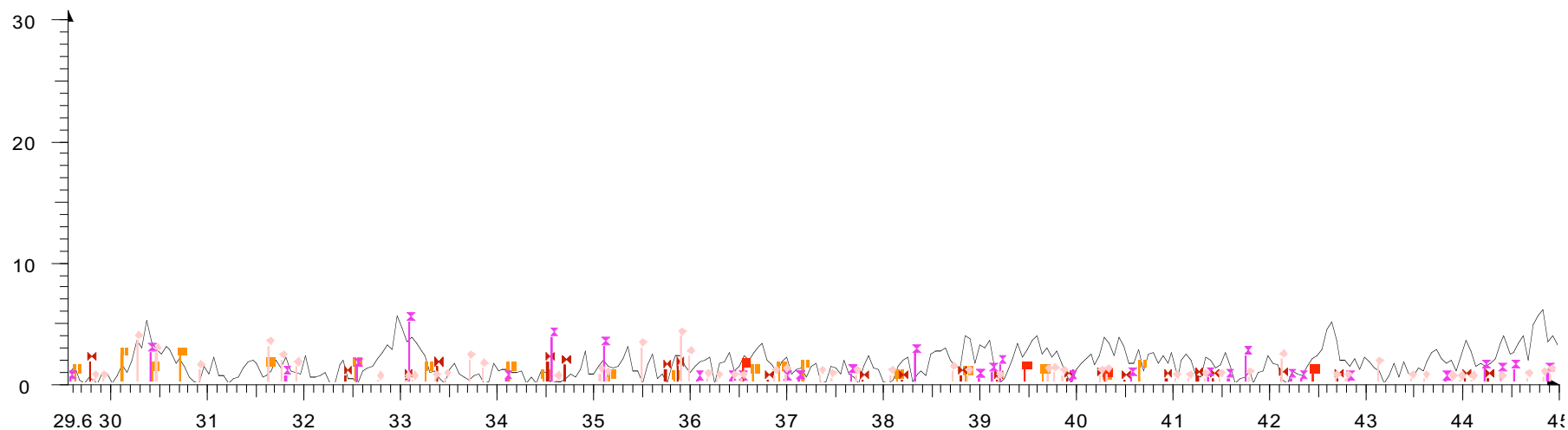
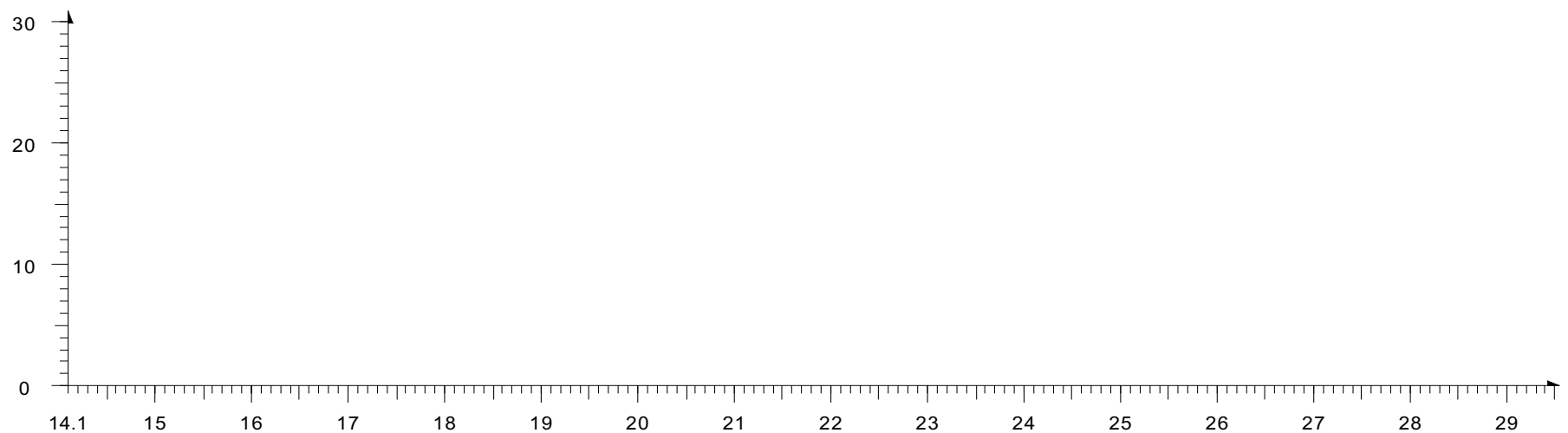
-  File: S2 all8min 11.raw
-  85-0796 (C) - Quartz - SiO_2
-  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
-  86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$
-  09-0466 (*) - Albite, ordered - $\text{NaAlSi}_3\text{O}_8$









- File: S2 all8min 11.raw
- 85-0796 (C) - Quartz - SiO₂
 - 37-0468 (*) - Scorodite - FeAsO₄·2H₂O
 - 86-1705 (C) - Anorthite - Ca(Al₂Si₂O₈)
 - 09-0466 (*) - Albite, ordered - NaAlSi₃O₈

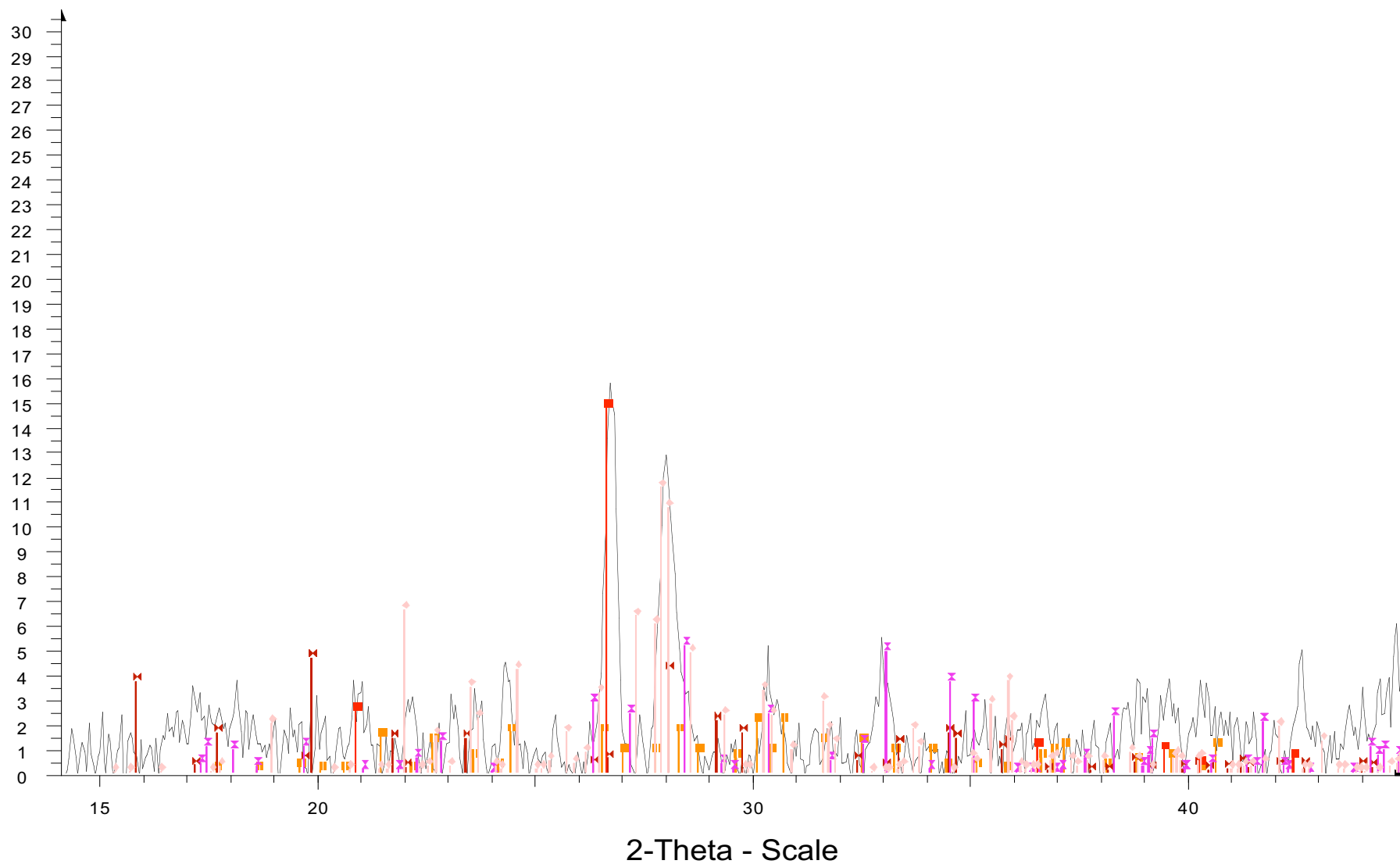








 File: S2 all8min 08.raw

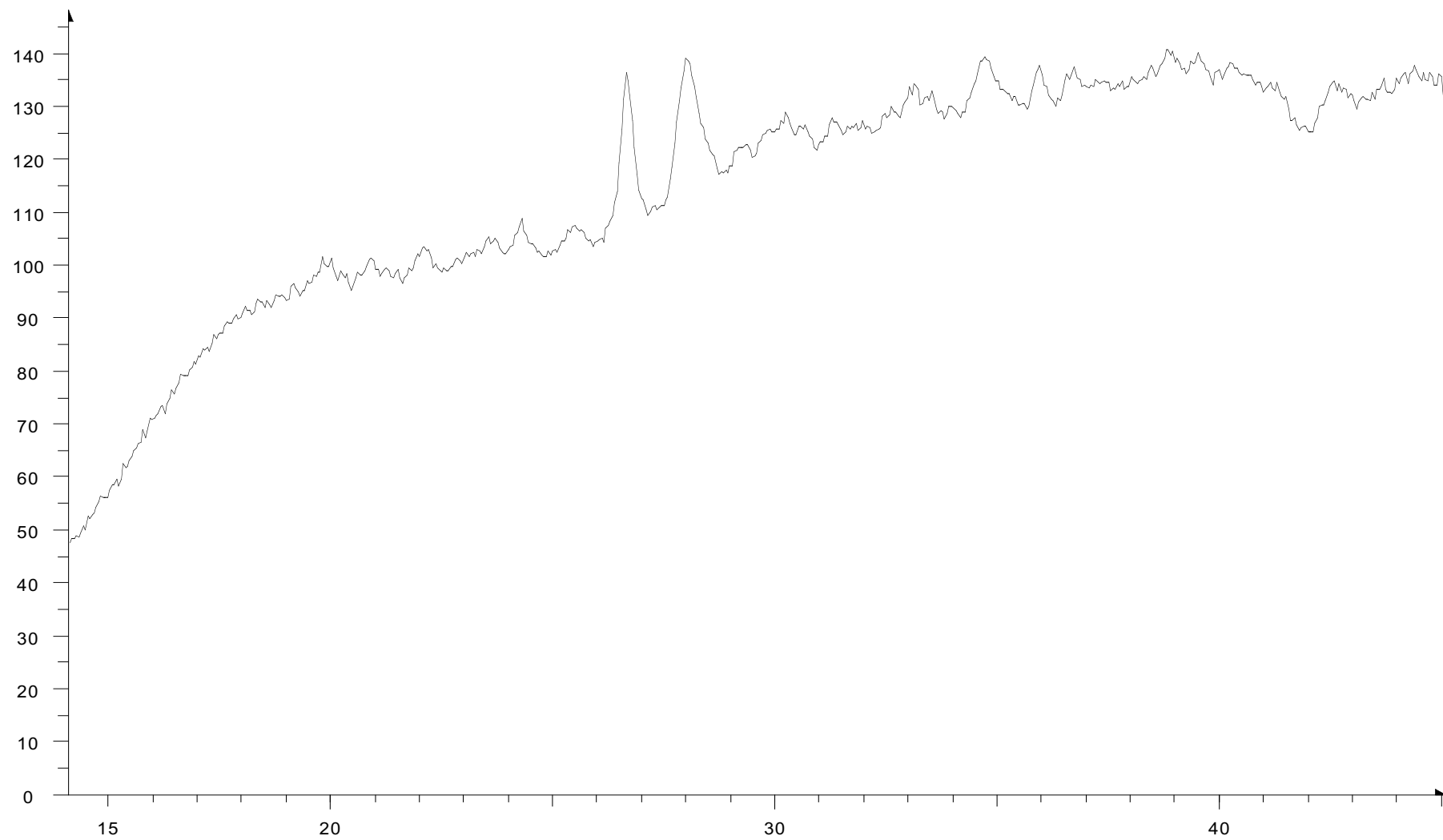



2-Theta - Scale

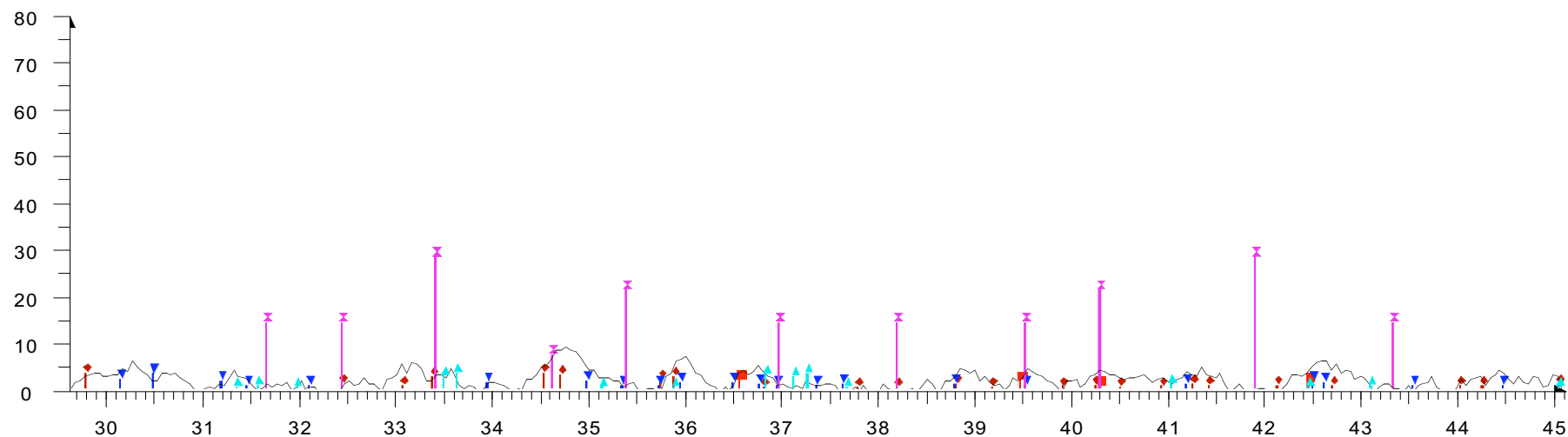
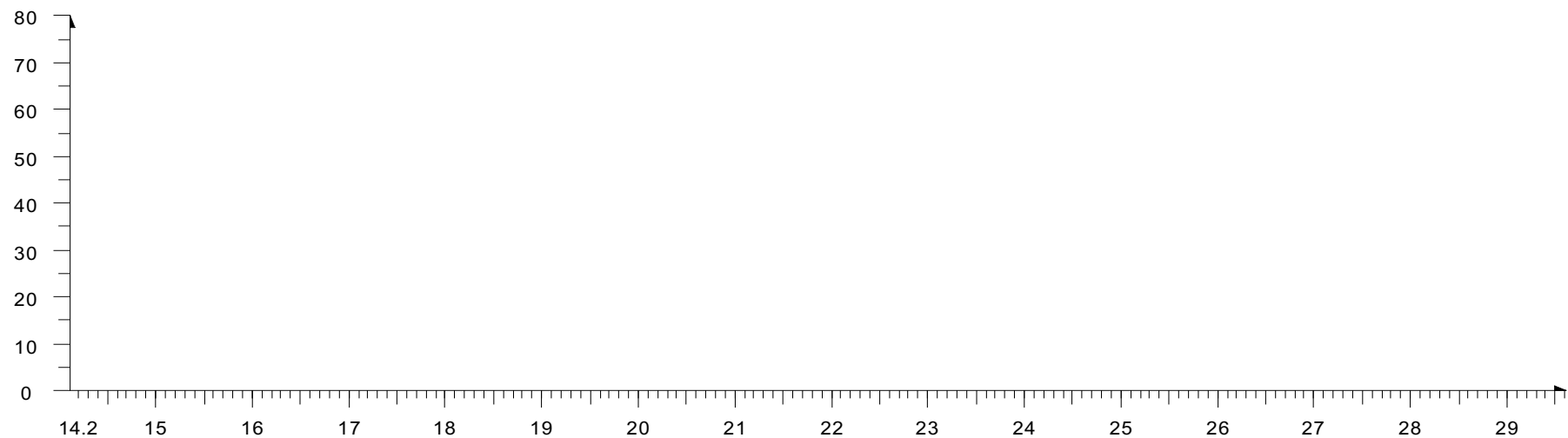
-  File: S2 all8min 08.raw
-  35-0462 (I) - Schneiderhoehnite - $\text{Fe}_8\text{As}_{10}\text{O}_{23}$
-  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
-  73-1135 (C) - Amphibole - $\text{Al}_{3.2}\text{Ca}_{3.4}\text{Fe}_{4.0}\text{K}_{6.0}\text{Na}_{1.0}\text{Si}_{12.8}\text{O}_{44}(\text{OH})_4$
-  85-0796 (C) - Quartz - SiO_2
-  86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$









-  File: S2 all8min 08.raw
-  35-0462 (I) - Schneiderhoehnite - $\text{Fe}_8\text{As}_{10}\text{O}_{23}$
-  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
-  73-1135 (C) - Amphibole - $\text{Al}_{3.2}\text{Ca}_{3.4}\text{Fe}_{4.0}\text{K}_{0.6}\text{Mg}_{6.0}\text{Na}_{1.0}\text{Si}_{12.8}\text{O}_{44}(\text{OH})_4$
-  85-0796 (C) - Quartz - SiO_2
-  86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$

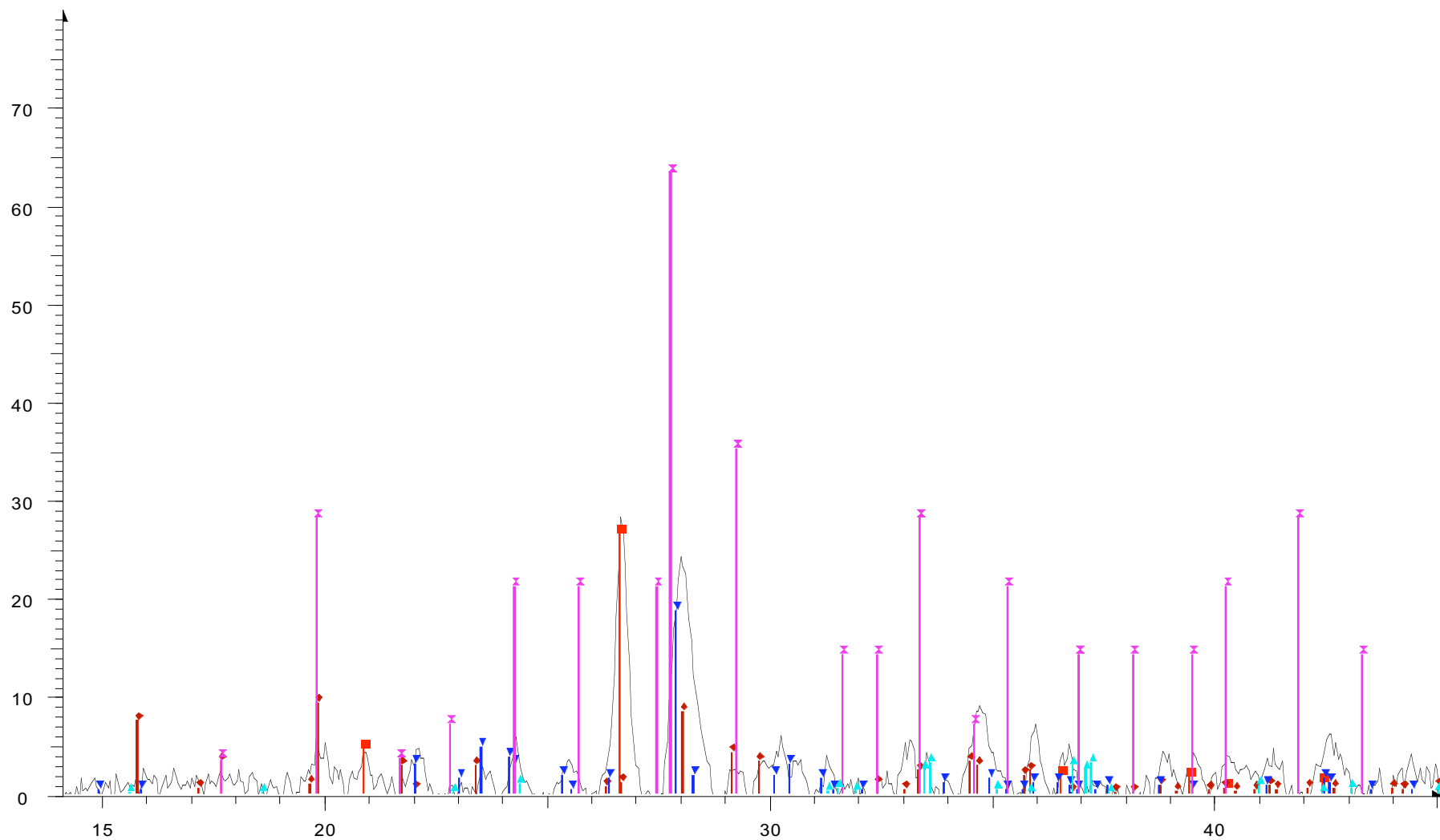


 File: S2 all8min 09.raw

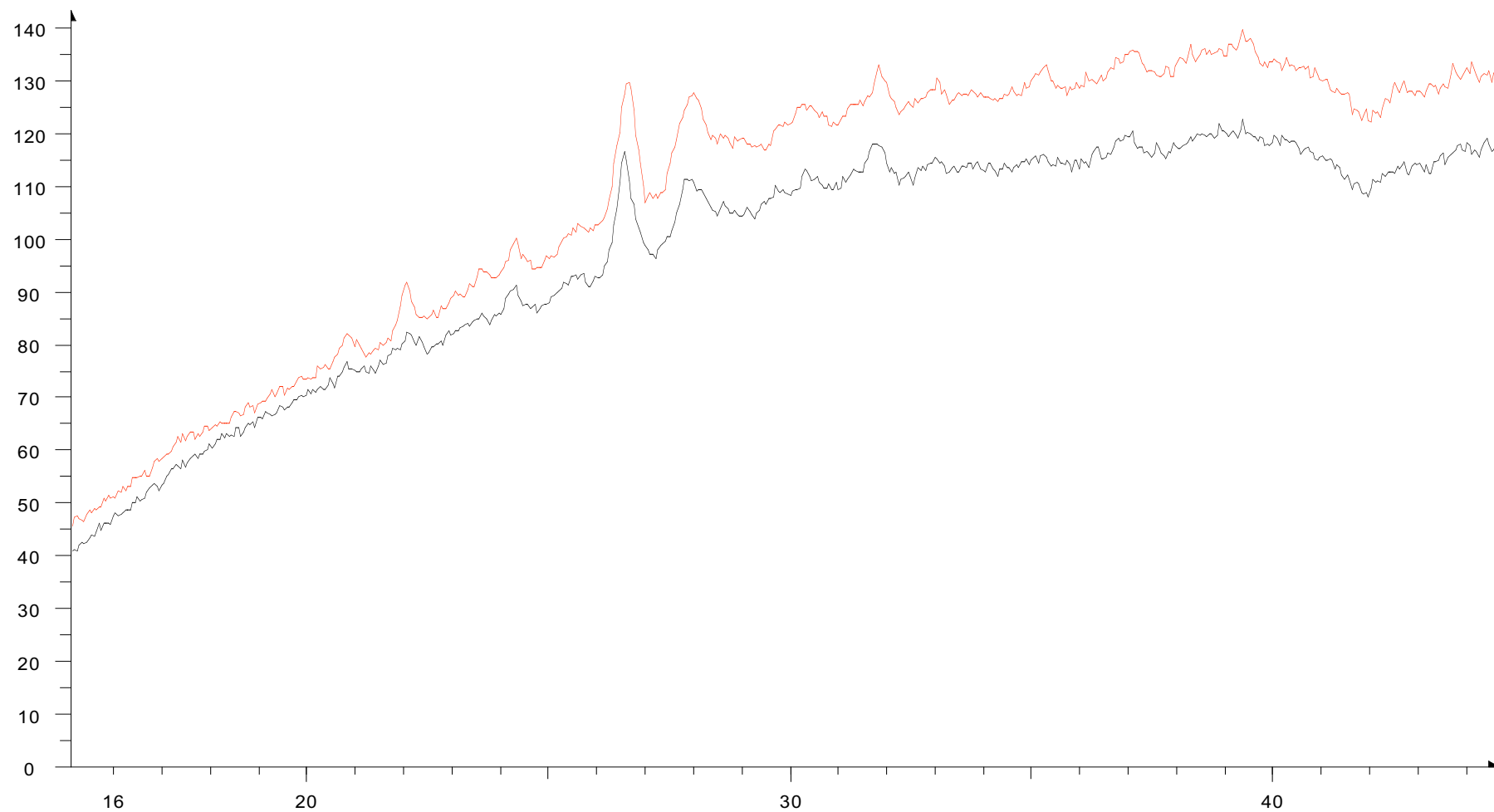




2-Theta - Scale

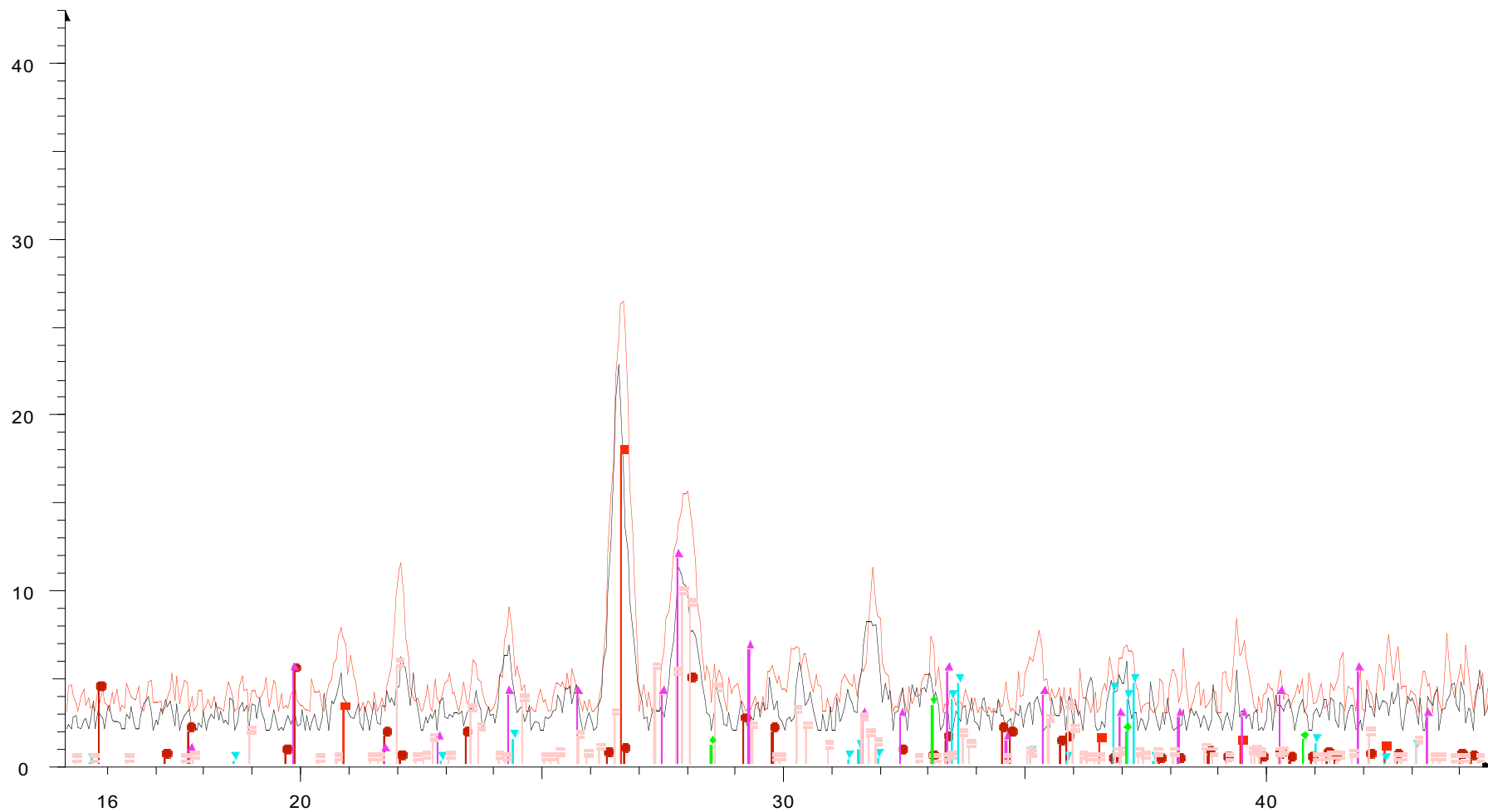
-  File: S2 all8min 09.raw
-  85-0796 (C) - Quartz - SiO_2
 -  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
 -  42-1320 (I) - Arsenovrite - FeAsS
 -  09-0466 (*) - Albite, ordered - $\text{NaAlSi}_3\text{O}_8$
 -  44-1468 (N) - Tooeleite - $\text{Fe}_8(\text{AsO}_4)_6(\text{OH})_6 \cdot 5\text{H}_2\text{O}$



- File: S2_all8min_09.raw
- 85-0796 (C) - Quartz - SiO₂
 - 37-0468 (*) - Scorodite - FeAsO₄·2H₂O
 - 42-1320 (I) - Arsenopyrite - FeAsS
 - 09-0466 (*) - Albite, ordered - NaAlSi₃O₈
 - 44-1468 (N) - Tooeleite - Fe₈(AsO₄)₆(OH)₆·5H₂O



 File: S2 all8min 12.raw
 Y + 3.0 mm - File: S2 all8min 13.raw



2-Theta - Scale

Y + 6.0 mm - File: S2 all8min 12.raw

Y + 9.0 mm - File: S2 all8min 13.raw

85-0796 (C) - Quartz - SiO₂

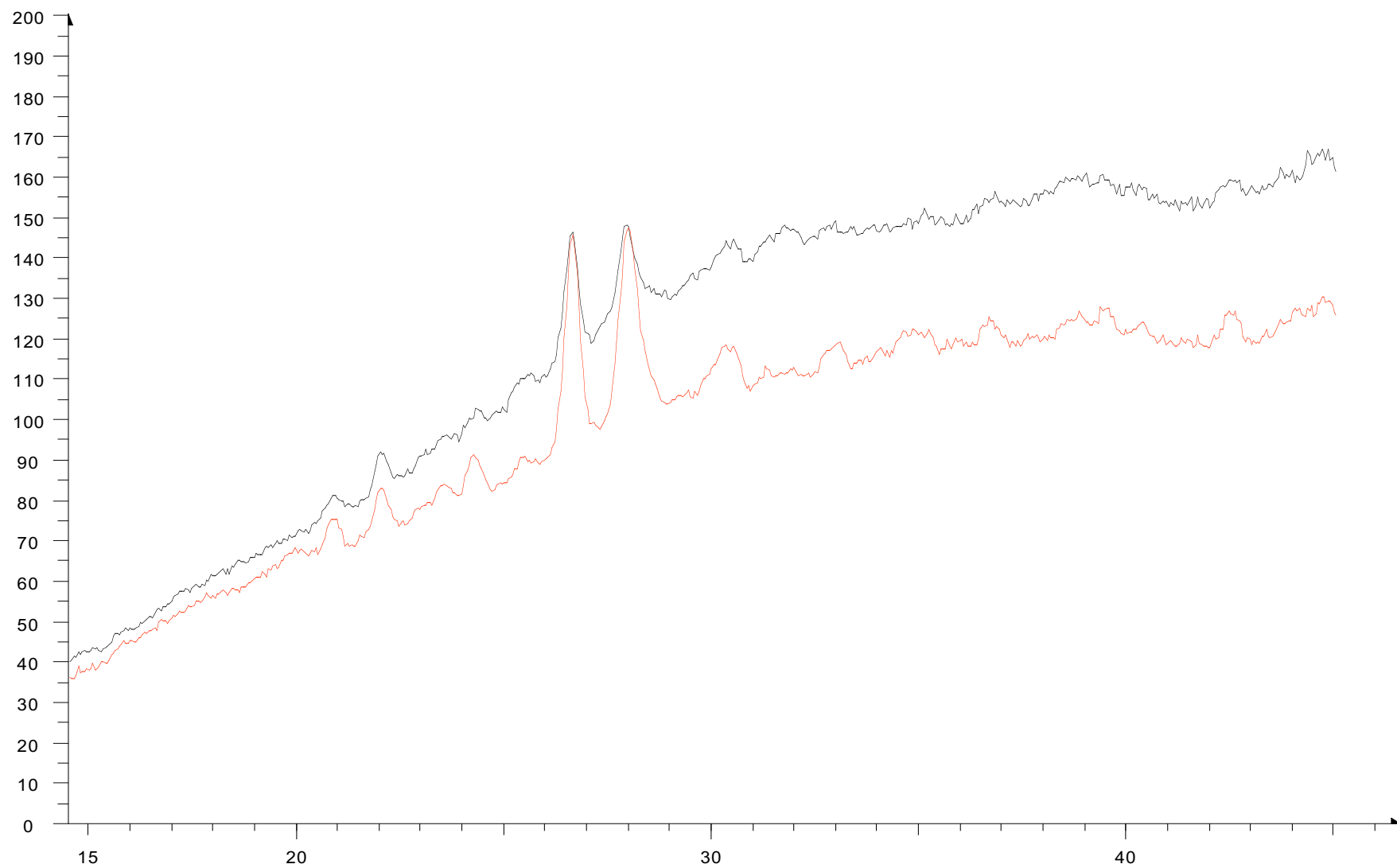
42-1340 (*) - Pwrite - FeS₂



37-0468 (*) - Scorodite - FeAsO₄·2H₂O

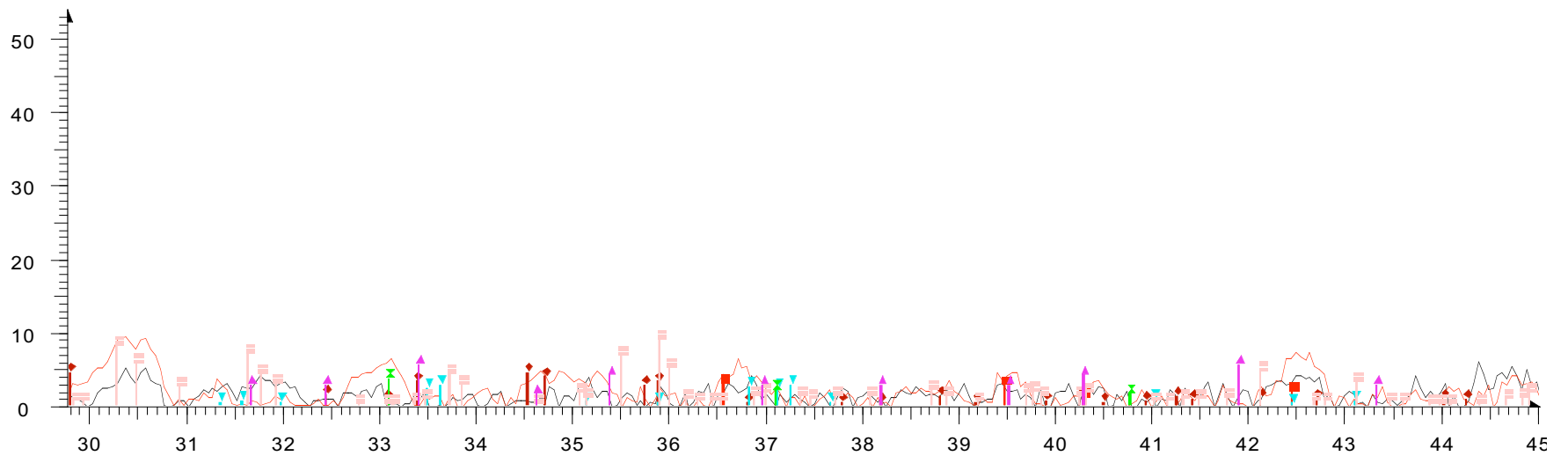
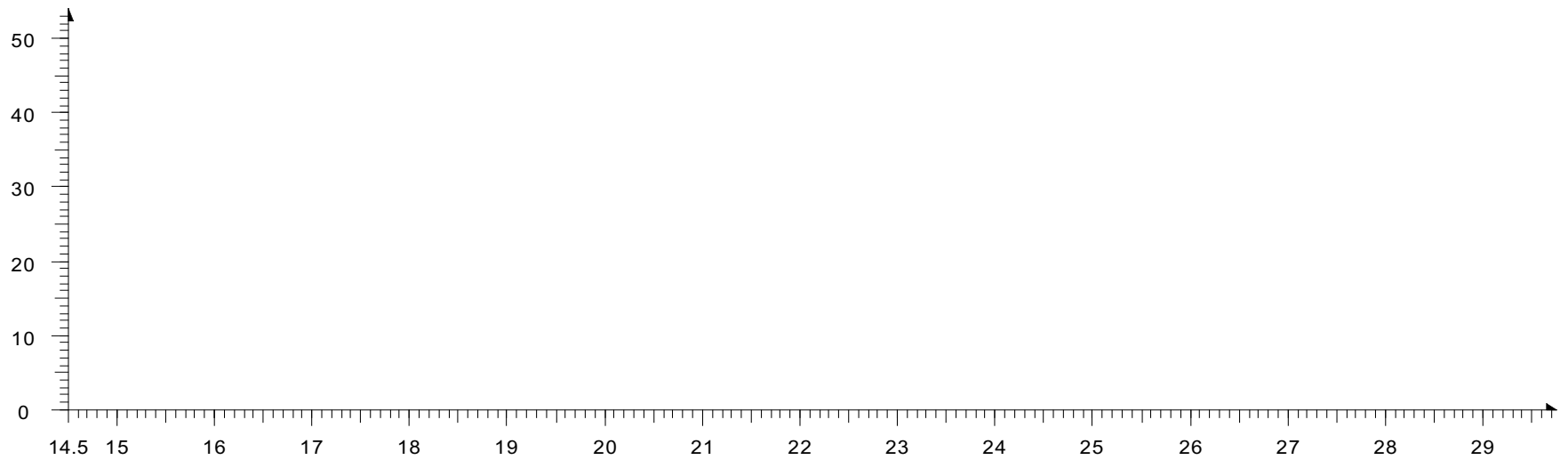
44-1468 (N) - Tooeleite - Fe₈(AsO₄)₆(OH)₆·5H₂O

42-1320 (I) - Arsenopvrite - FeAsS







86-1705 (C) - Anorthite - Ca(Al₂Si₂O₈)

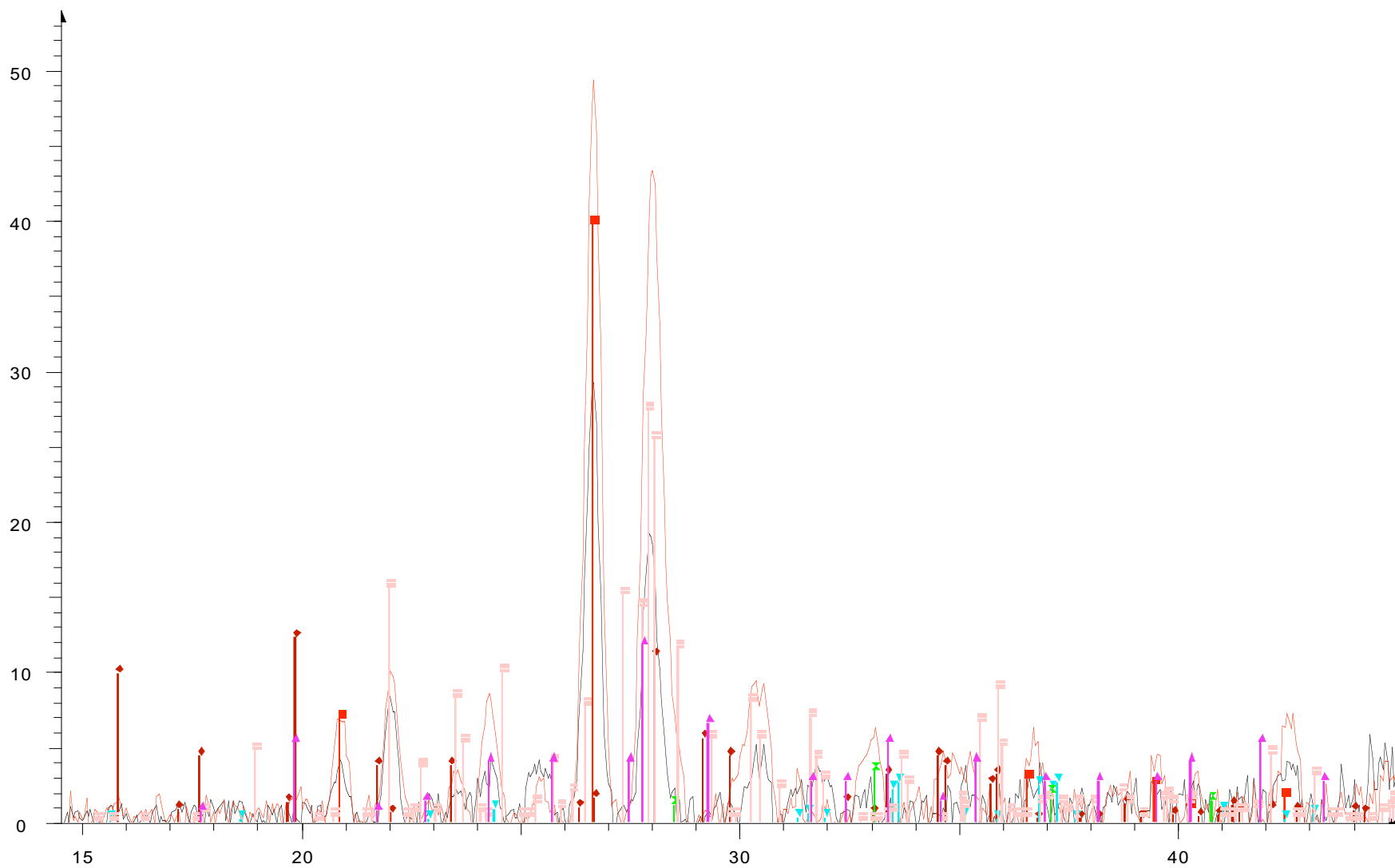


 File: S2 all8min 15.raw
 File: S2 all8min 16.raw



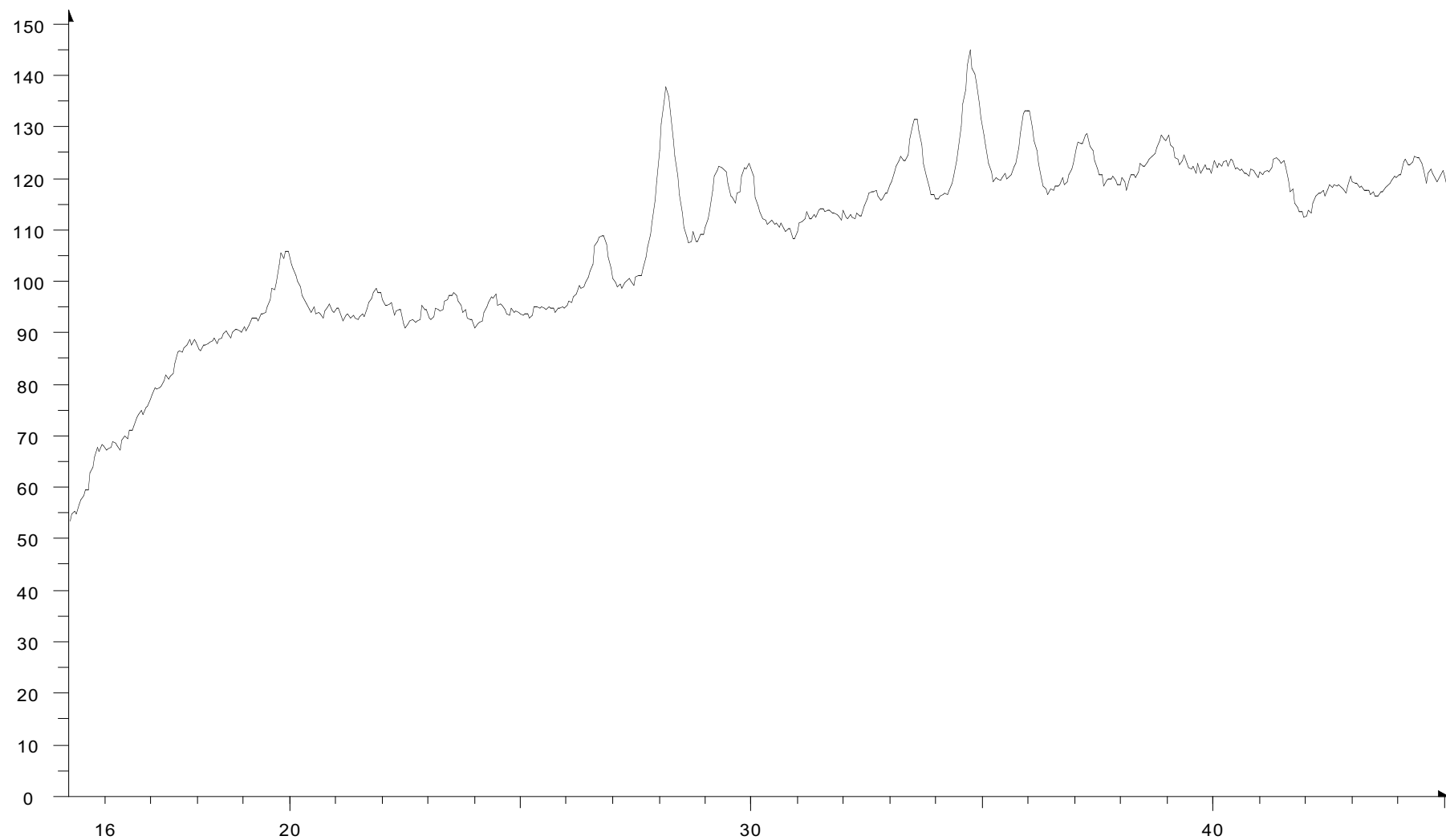
2-Theta - Scale

- | | |
|--|--|
|  File: S2 all8min 15.raw |  86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$ |
|  File: S2 all8min 16.raw |  44-1468 (N) - Tooeleite - $\text{Fe}_8(\text{AsO}_4)_6(\text{OH})_6 \cdot 5\text{H}_2\text{O}$ |
|  85-0796 (C) - Quartz - SiO_2 | |
|  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$ | |
|  42-1320 (I) - Arsenopyrite - FeAsS | |
|  42-1340 (*) - Pyrite - FeS_2 | |

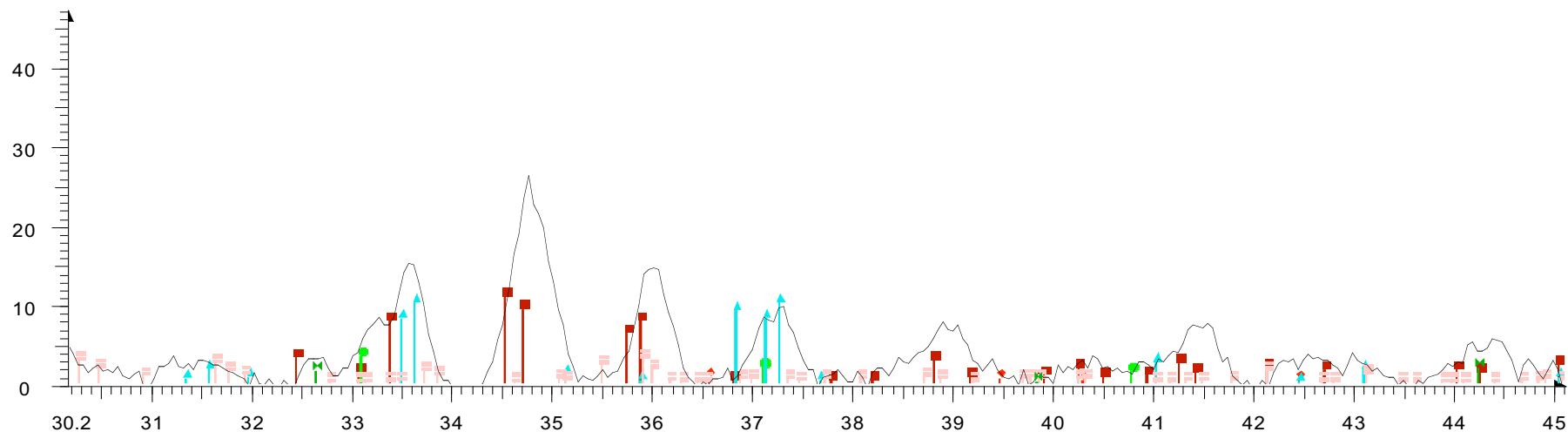
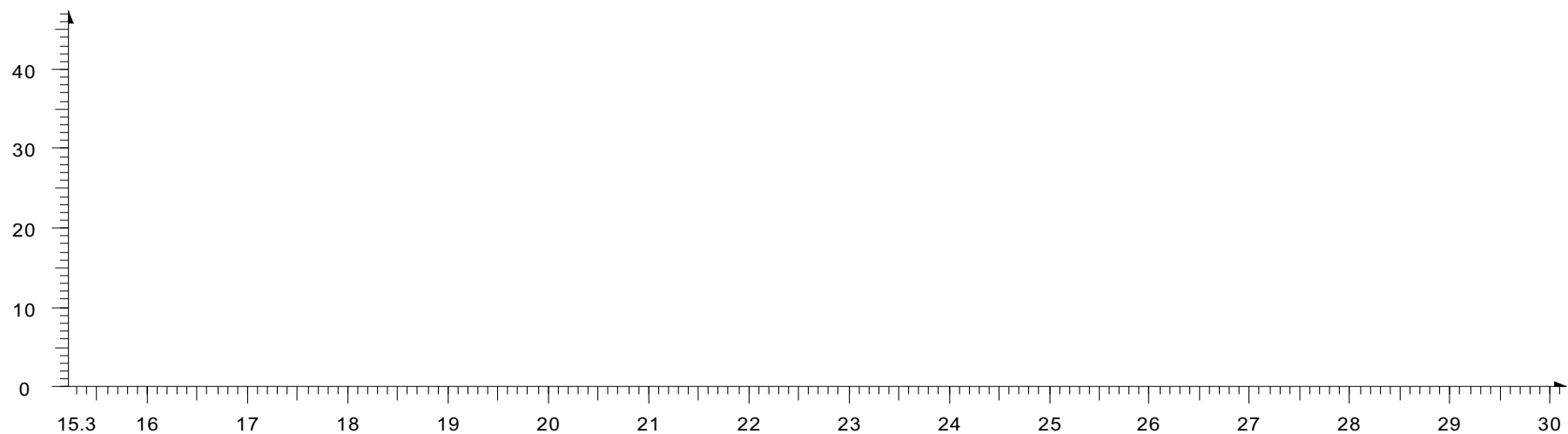


2-Theta - Scale







- File: S2 all8min 15.raw
- File: S2 all8min 16.raw
- 85-0796 (C) - Quartz - SiO_2
- 37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
- 42-1320 (I) - Arsenopyrite - FeAsS
- 42-1340 (*) - Pyrite - FeS_2
- 86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$
- 44-1468 (N) - Tooeleite - $\text{Fe}_8(\text{AsO}_4)_6(\text{OH})_6 \cdot 5\text{H}_2\text{O}$



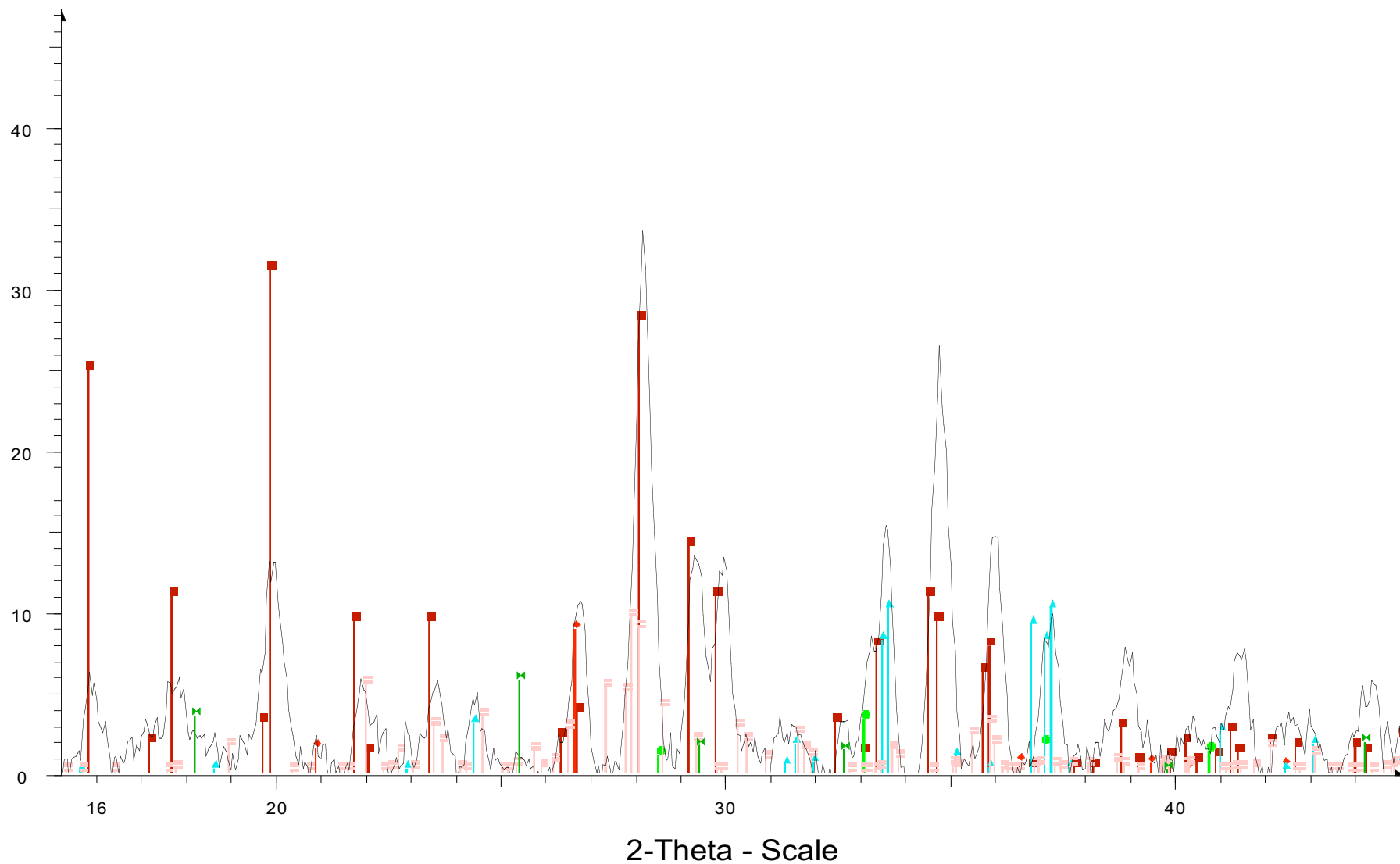
 File: S2 2 5rain8min 18.raw



2-Theta - Scale

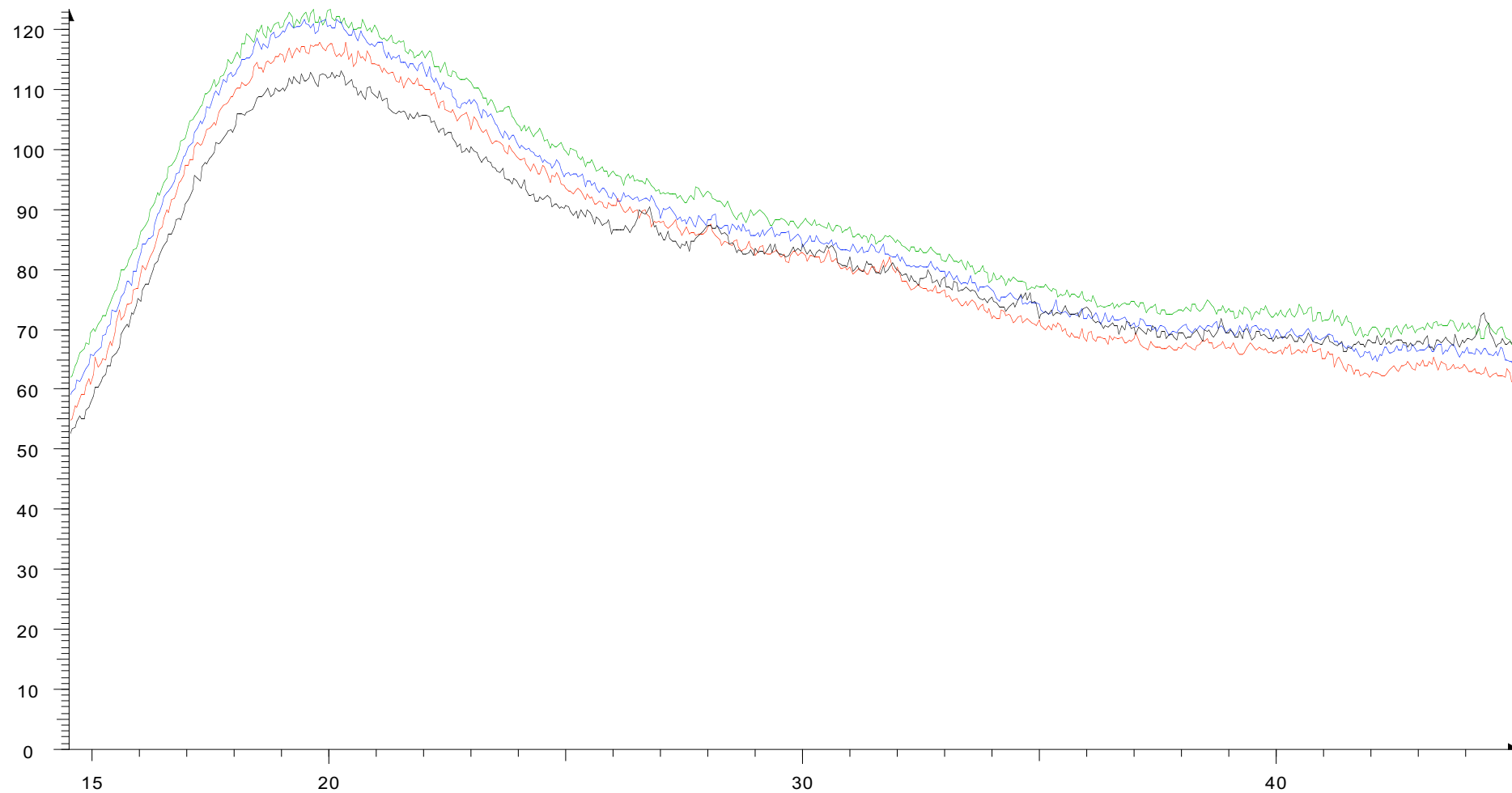
-  File: S2 2 5rain8min 18.raw
-  37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
-  85-0796 (C) - Quartz - SiO_2
-  42-1340 (*) - Pprite - FeS_2
-  42-1320 (I) - Arsenopprite - FeAsS
-  86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$

 49-1057 (Q) - Hydrobiotite - $\text{K-Mg-Al-SiO}_2\text{-H}_2\text{O}$



File: S2 2 5rain8min 18.raw
37-0468 (*) - Scorodite - $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$
85-0796 (C) - Quartz - SiO_2
42-1340 (*) - Pprite - FeS_2
42-1320 (I) - Arsenopprite - FeAsS
86-1705 (C) - Anorthite - $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$

49-1057 (Q) - Hydrobiotite - $\text{K-Mg-Al-SiO}_2\text{-H}_2\text{O}$



2-Theta - Scale

- Y + 3.0 mm - File: S2 all8min 19.raw
- Y + 6.0 mm - File: S2 all8min 20.raw
- Y + 9.0 mm - File: S2 all8min 21.raw
- Y + 12.0 mm - File: S2 all8min 22.raw

AMORPHOUS MATERIAL - ZONE 5