

Analytical results of x-ray diffraction studies on tuff beds from core of the following five NPRA wells:

U. S. Navy	Simpson Core Test No. 27 (167', & 309')
U. S. Navy	Simpson Core Test No. 30 (170', & 293-298')
U. S. Navy	North Simpson Test No. 1 (2407-2408')
U. S. Navy	Fish Creek Test No. 1 (825', 830', & 1646')
U. S. Navy	Umiat Test No. 1 (495-498', & 507-508')

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Total of 21 pages in report

State of Alaska Geologic Materials Center Data Report No. 145

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Div. of Geological Survey  
Eagle River

**DATE:** 19 November 1989

**SUBJECT:** NPRA core X-ray and K-Ar data

It was good to visit with you last week. First, please accept my sincere apologies for not getting these results to you sooner. This memo provides a summary of analytical results of x-ray diffraction and  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology studies on tuff beds from several NPRA cores from the Simpson, North Simpson, Fish Creek, and Umiat wells. Enclosed please find x-ray diffraction spectra on the <2 micron fraction of 10 samples of the bentonitic tuffs. The spectra are for air dried (designated NARSA...) and ethylene glycol solvated (designated NARSG...) samples and were generated with a SINTAG PAD V X-ray diffractometer (Mike Kelton, analyst) with the following operating conditions: 45 kV, 40 mA, Cu Ka radiation, solid state crystal detector, 1 degree/min=scan rate, 0.03 degree=step size. The sample names give the well name (eg. SIMP), core number (eg. 27), and depth or depth range (eg. 167).

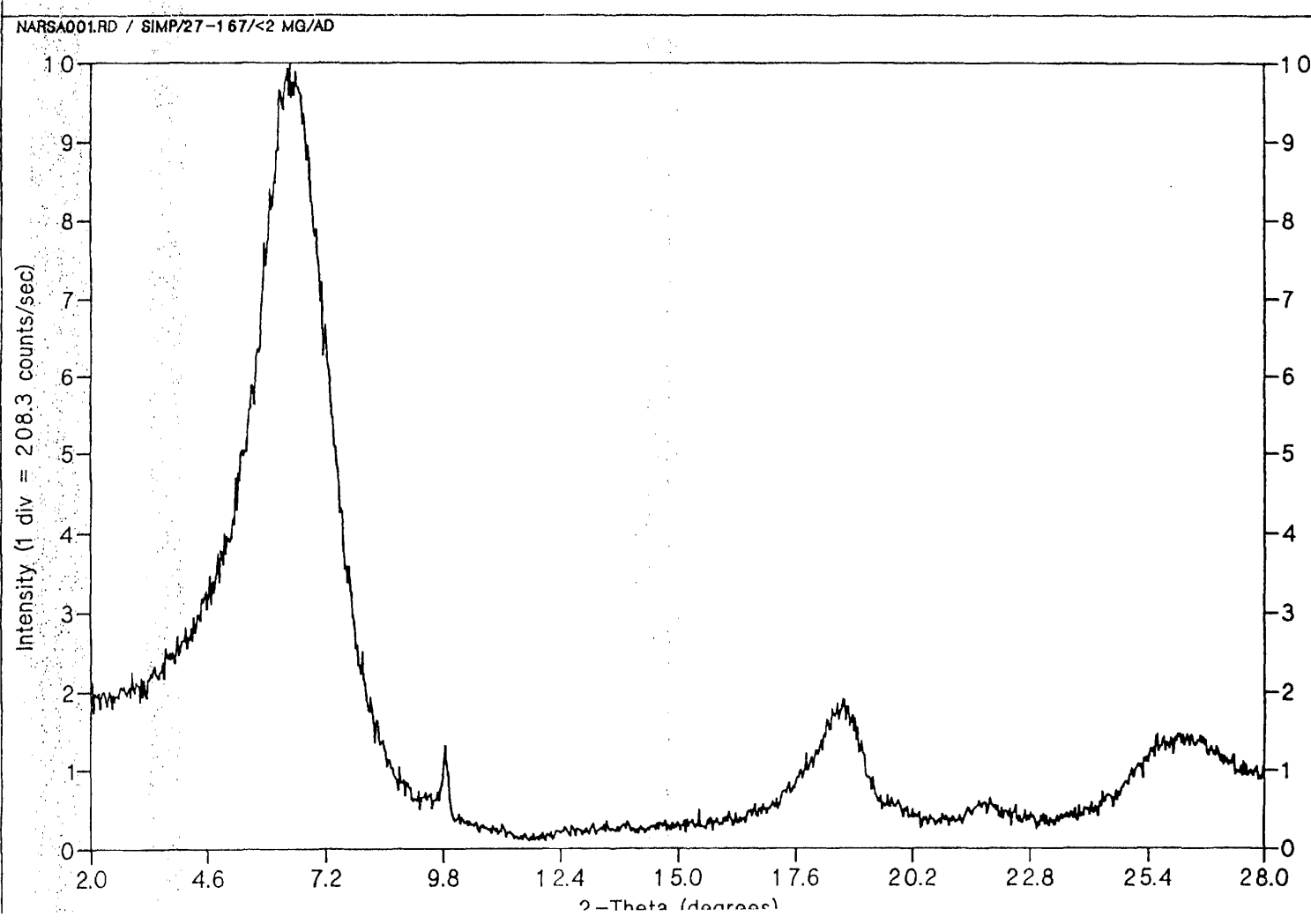
Also enclosed are K-Ar analytical results (Tom Bills, analyst) on biotite concentrates from two tuff samples (Umiat-#1-510.5' and Umiat-#11-488'). These two samples were the only two for which we were able to separate enough sufficiently pure and unaltered biotite for conventional K-Ar work.

I thank you for your cooperation in permitting these analyses and we look forward to future cooperative endeavors.

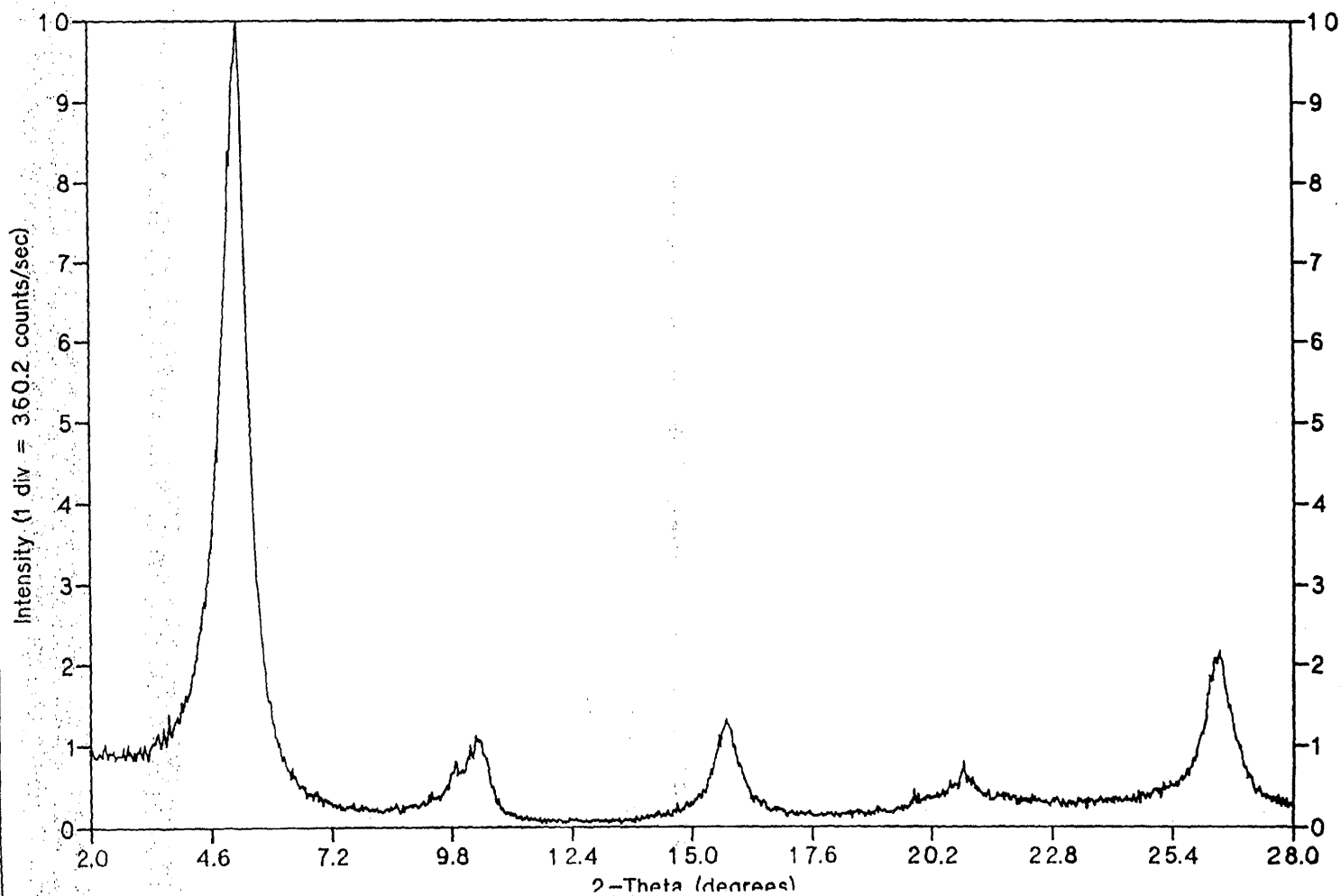
Sincerely Yours,



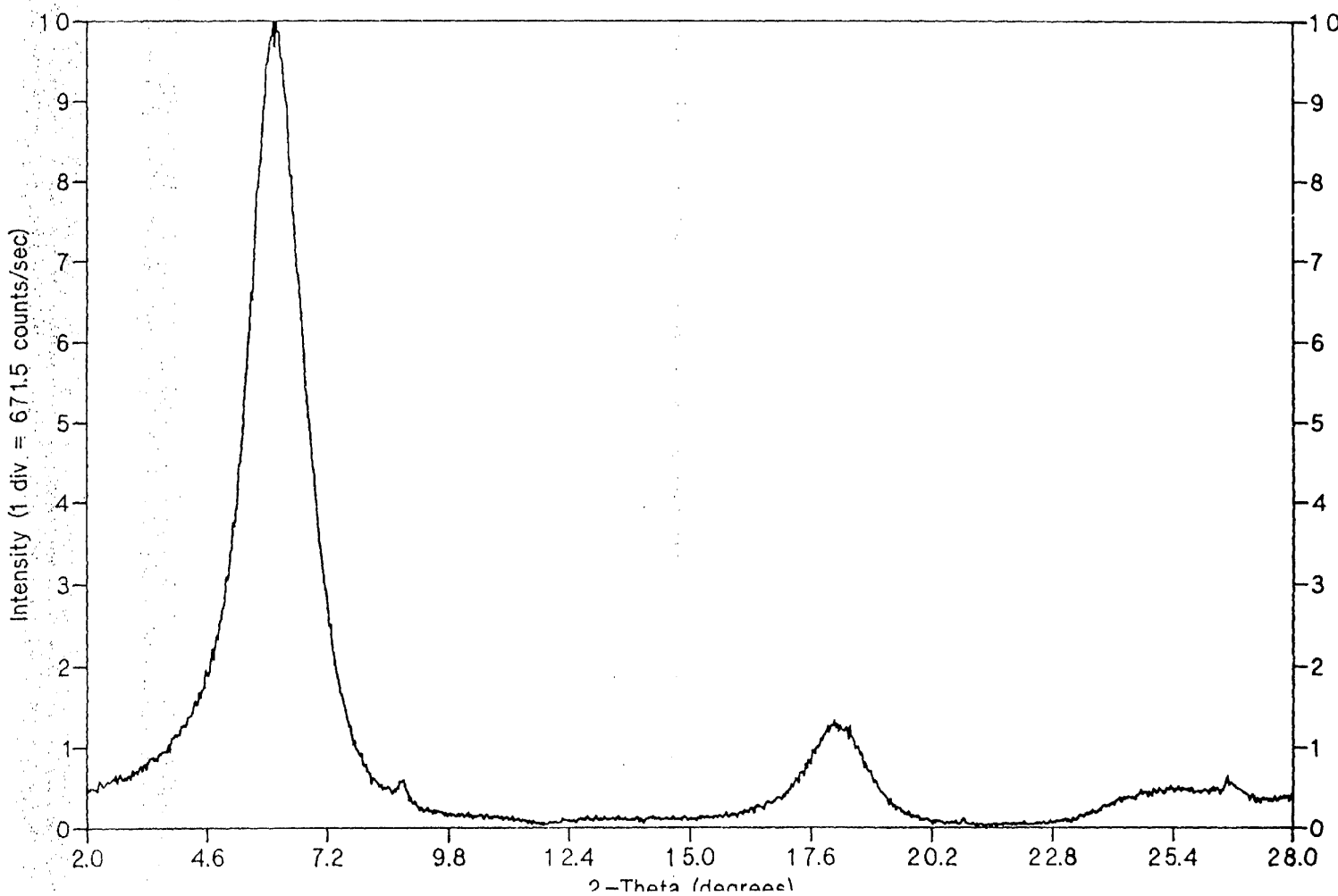
Steven C. Bergman  
Principal Research Geologist

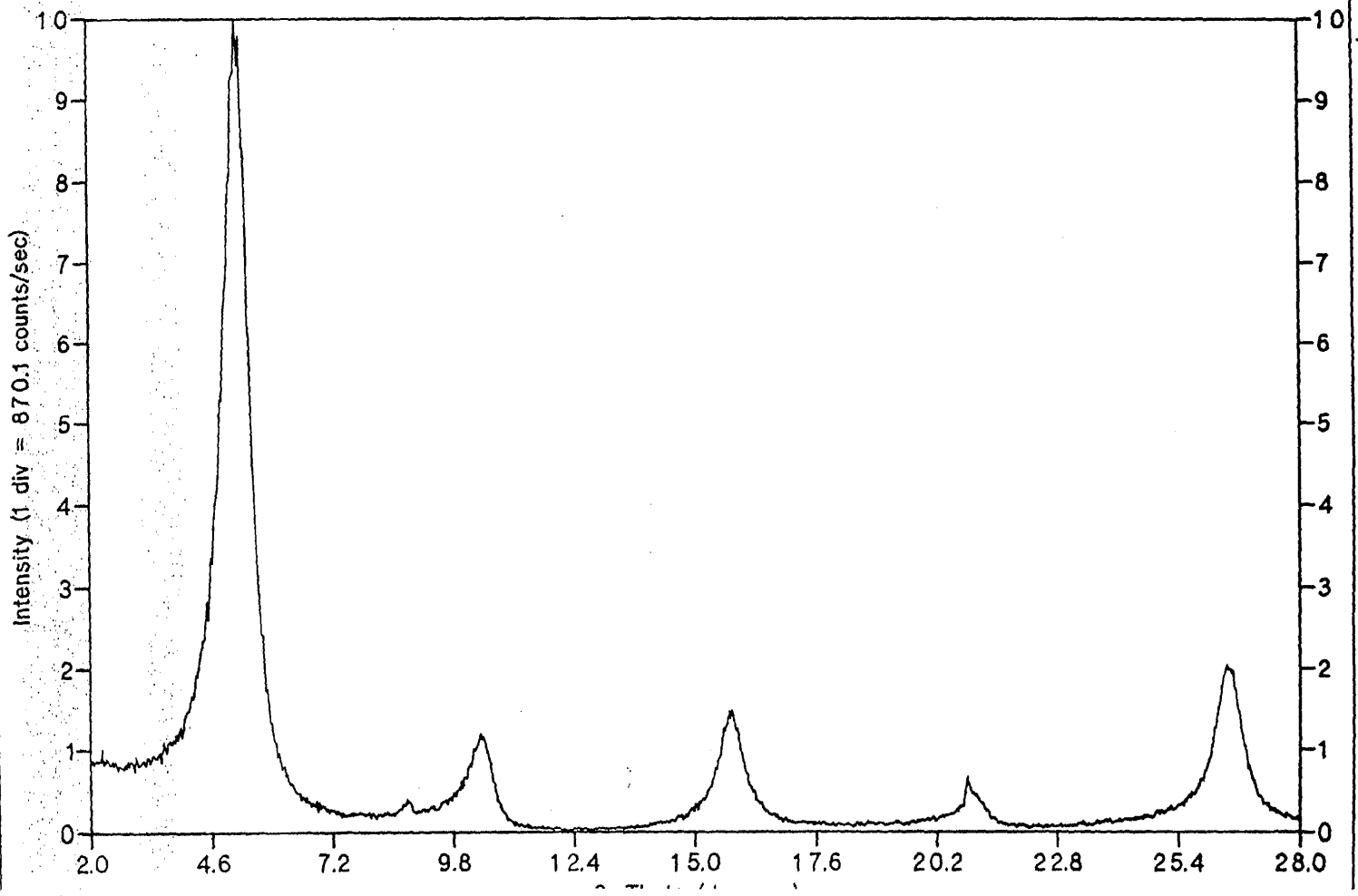


NARSG001.RD / SIMP/27-1 67/<2 GLY.

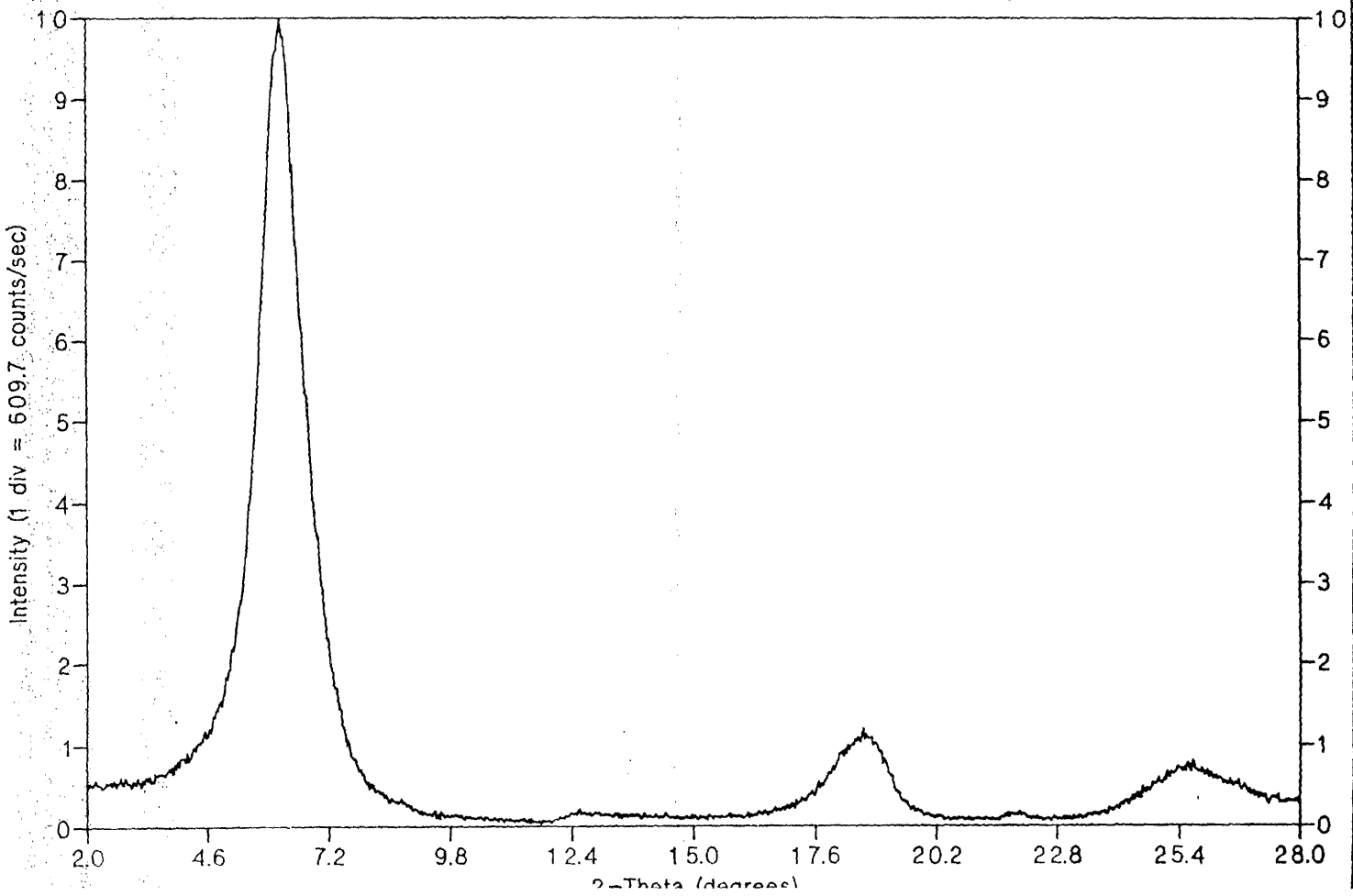


NARSA002.RD / SIMP/27-309-10/COL/<2

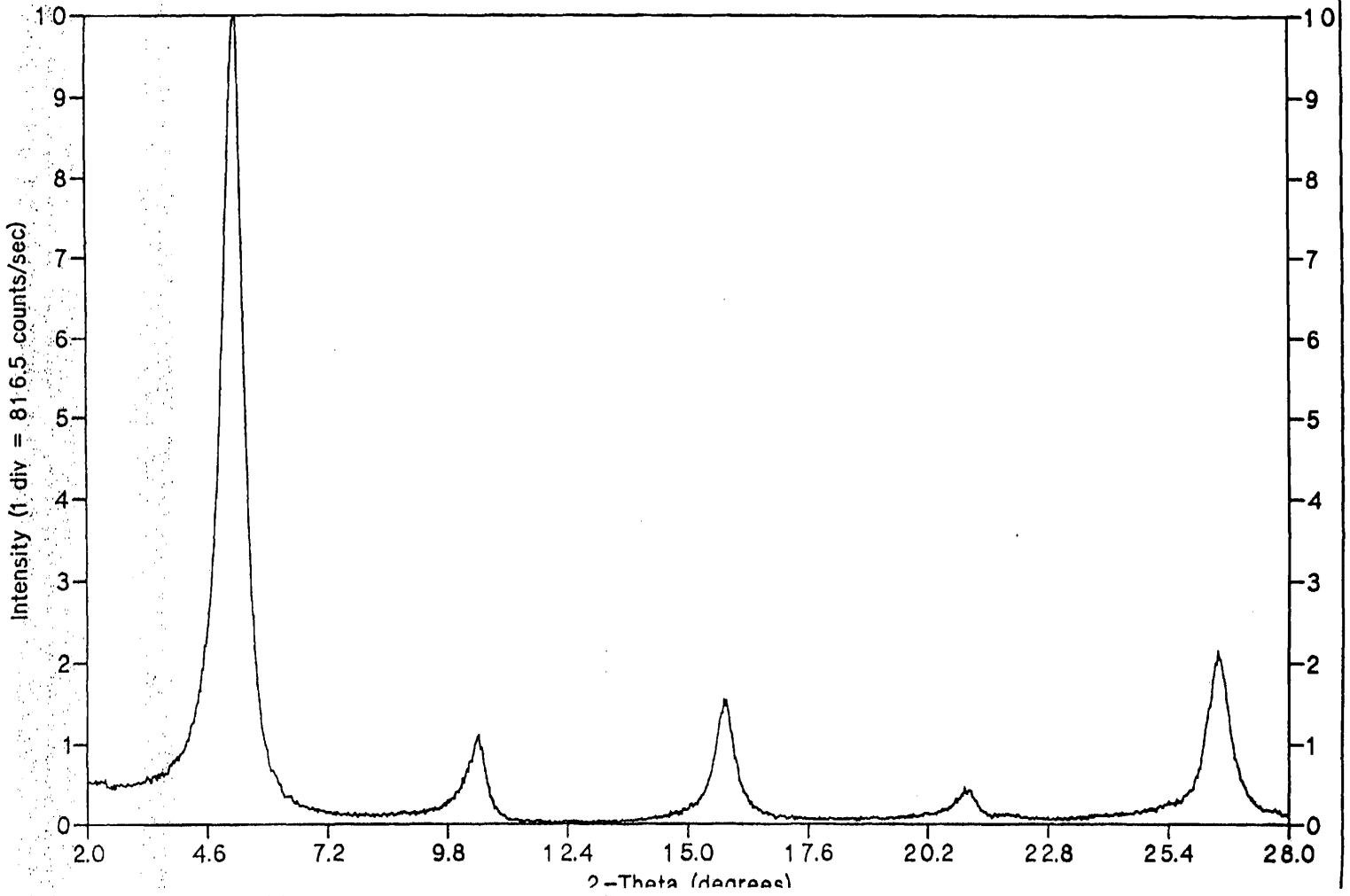




NARSA003.RD / SIMP/30-170/COL/<2 GLY

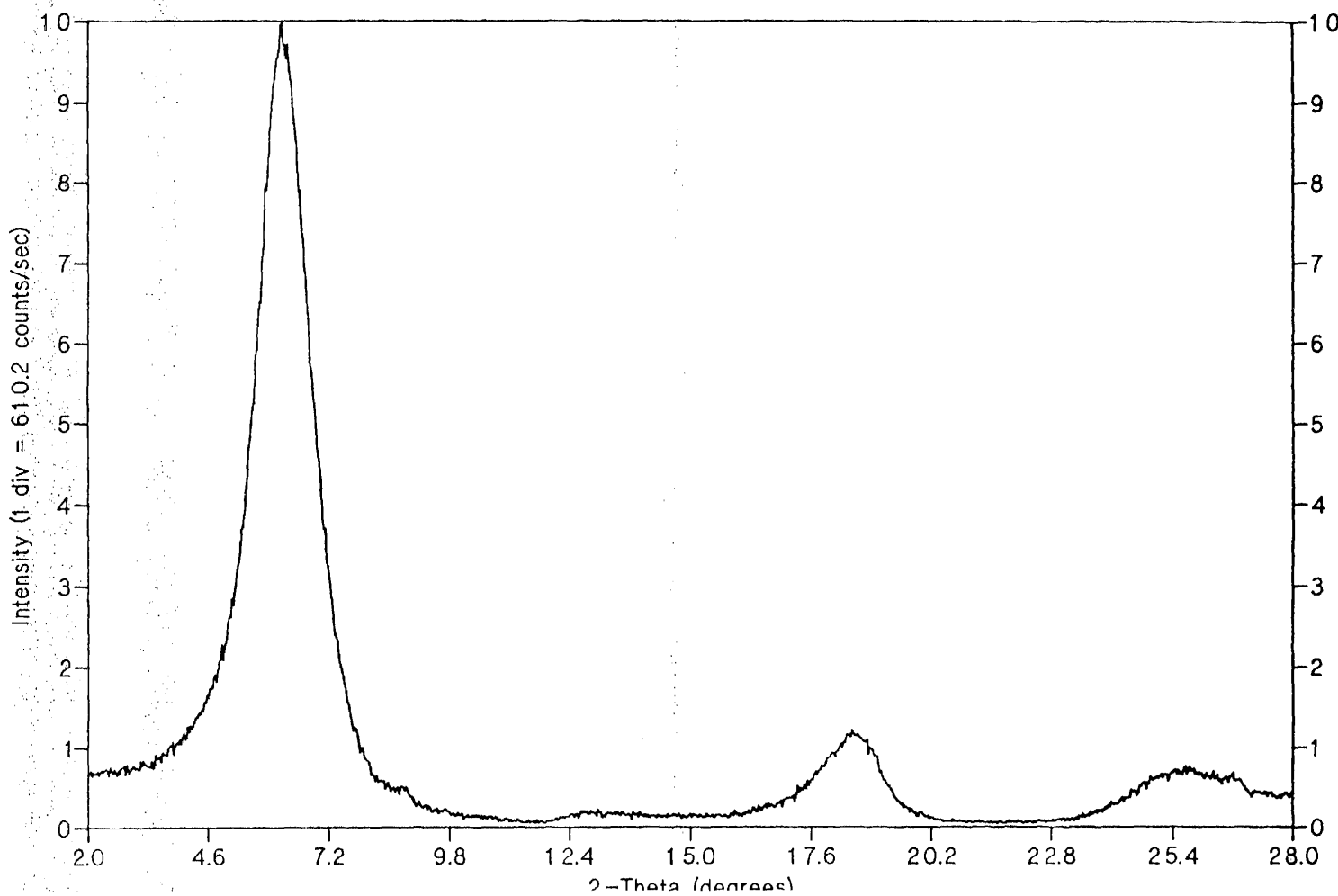


NARSG003.RD / SIMP/30-1700/COL/<2 GLY

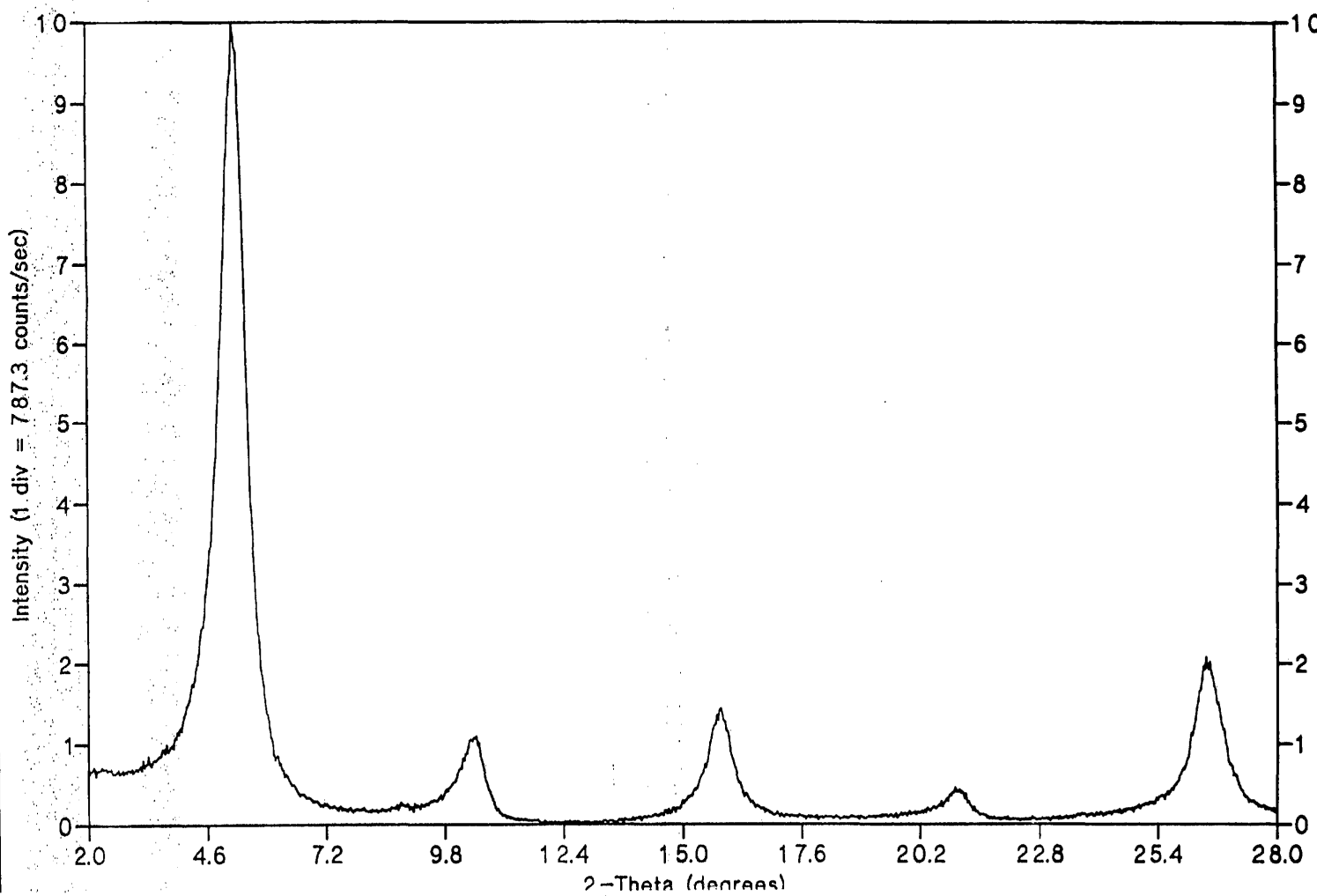




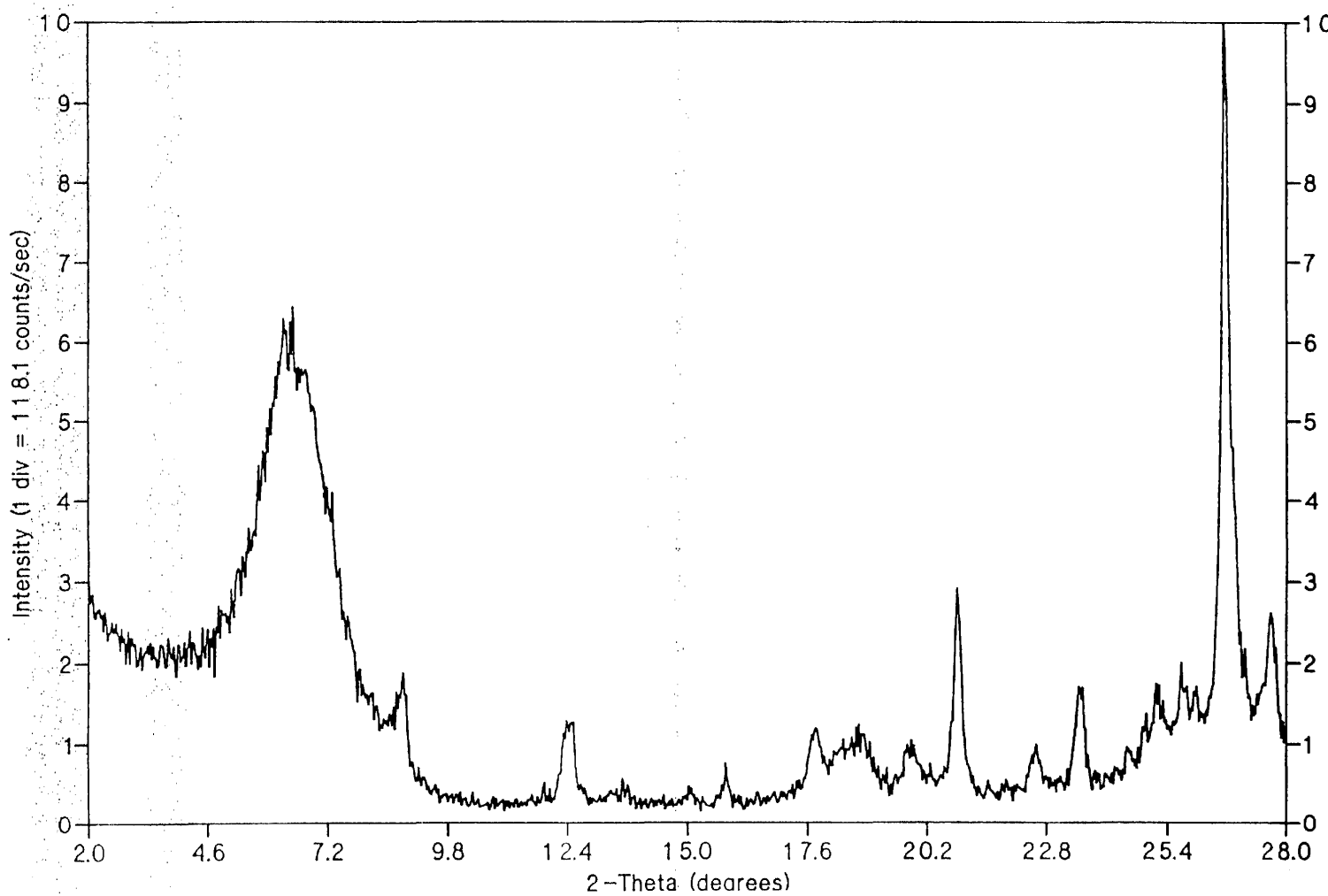
NARSA004.RD / SIMP/30-293-8/<2/COL\*

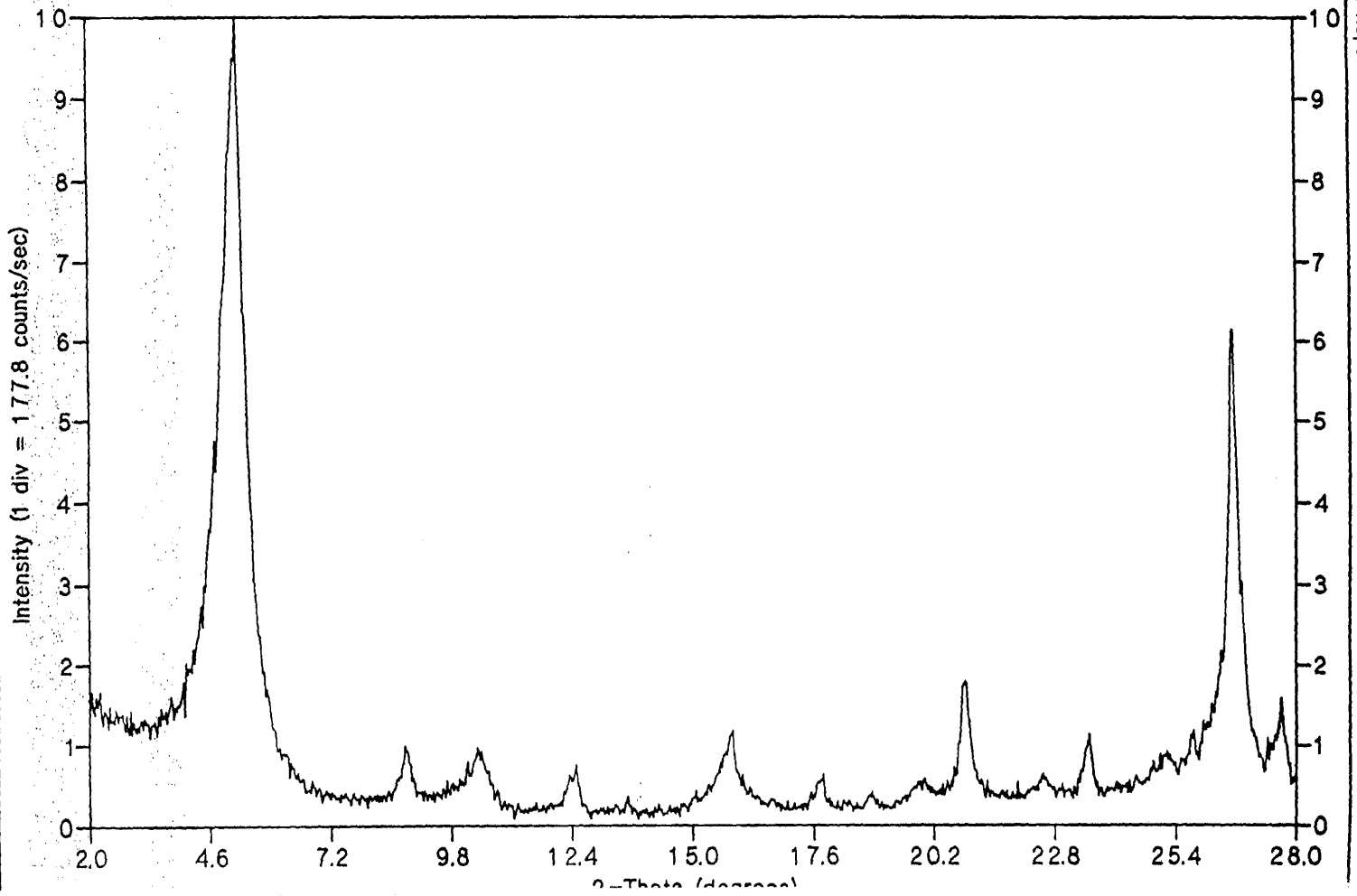


NARSG004.RD / SIMP/30-293-8/<2/COL/GLY\*

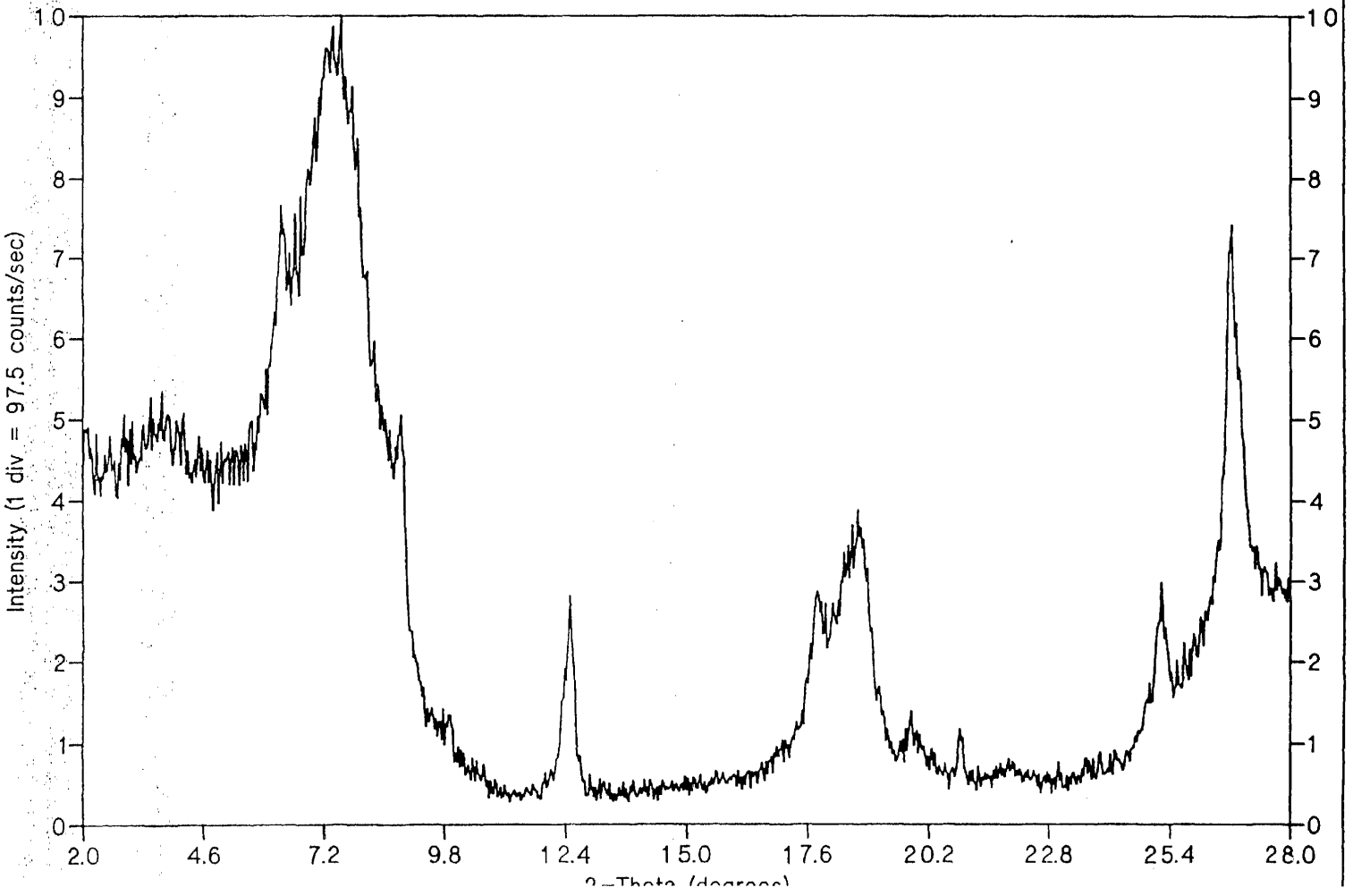


NARSA006.RD / N SIMP/1-2407-8/<2 MG/AD

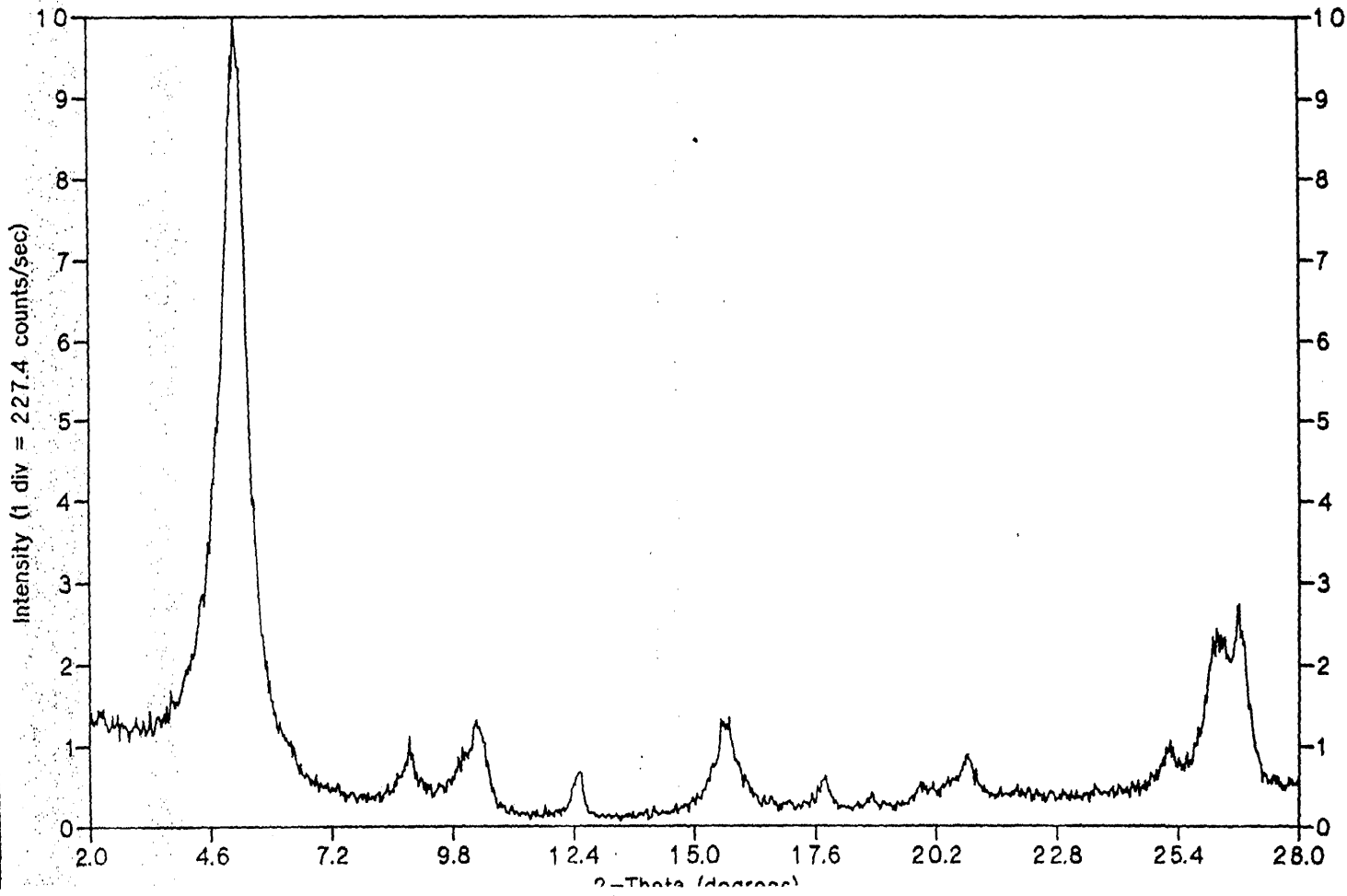




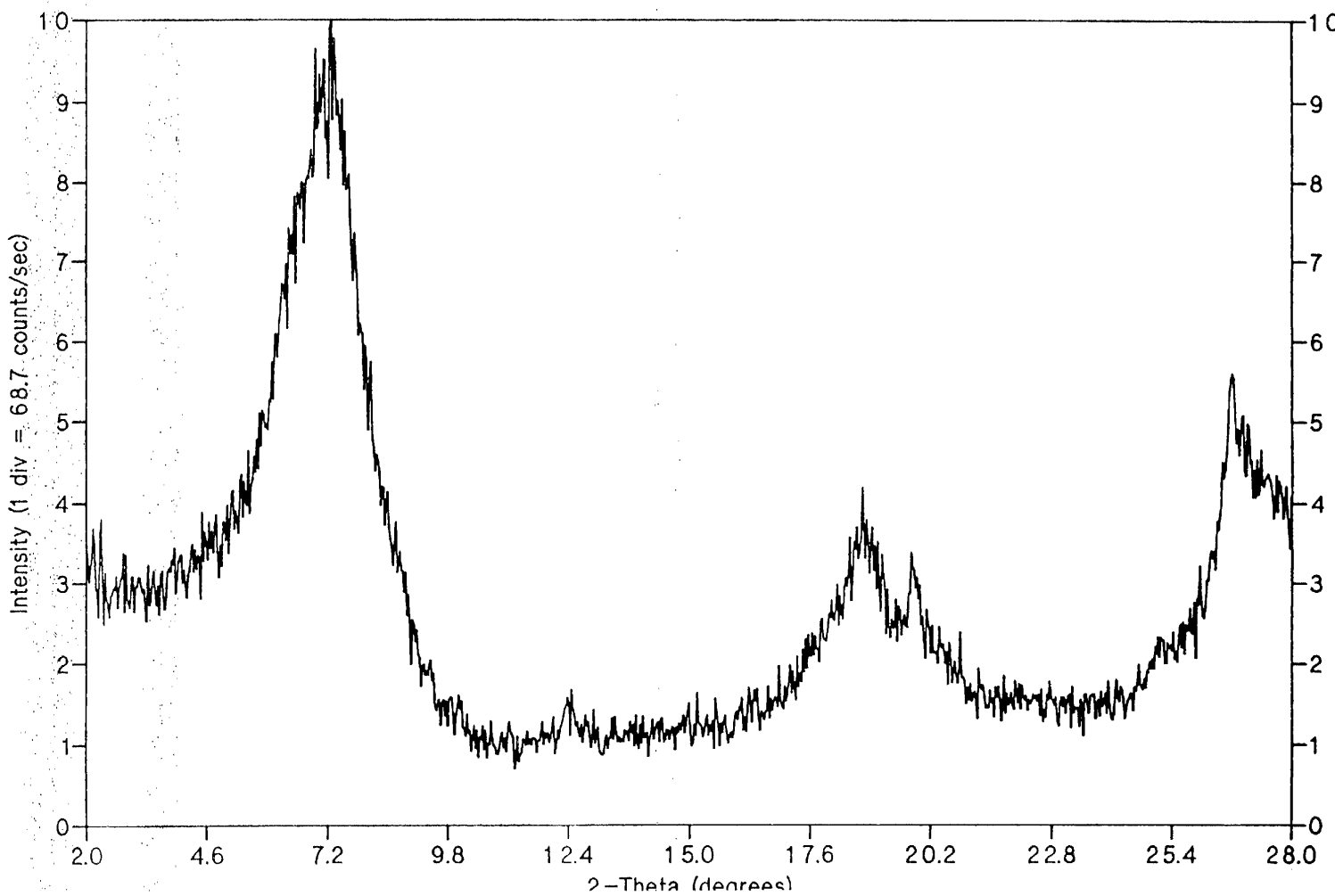
NARSA006.RD / FISH CREEK/1 -4/825/<2 MG/AD

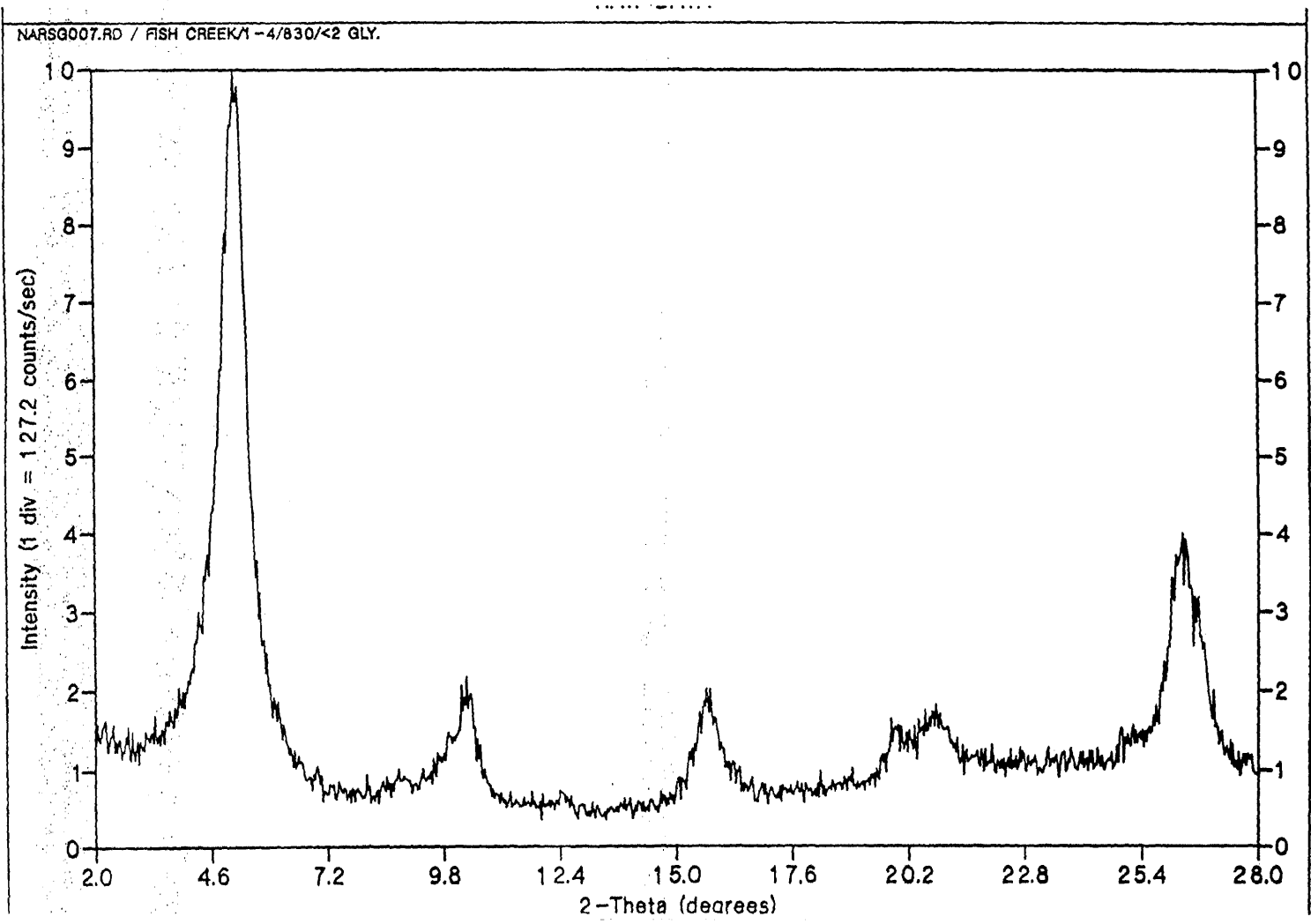


NARSG006.RD / FISH CREEK/1-4/826/<2 GLY\*



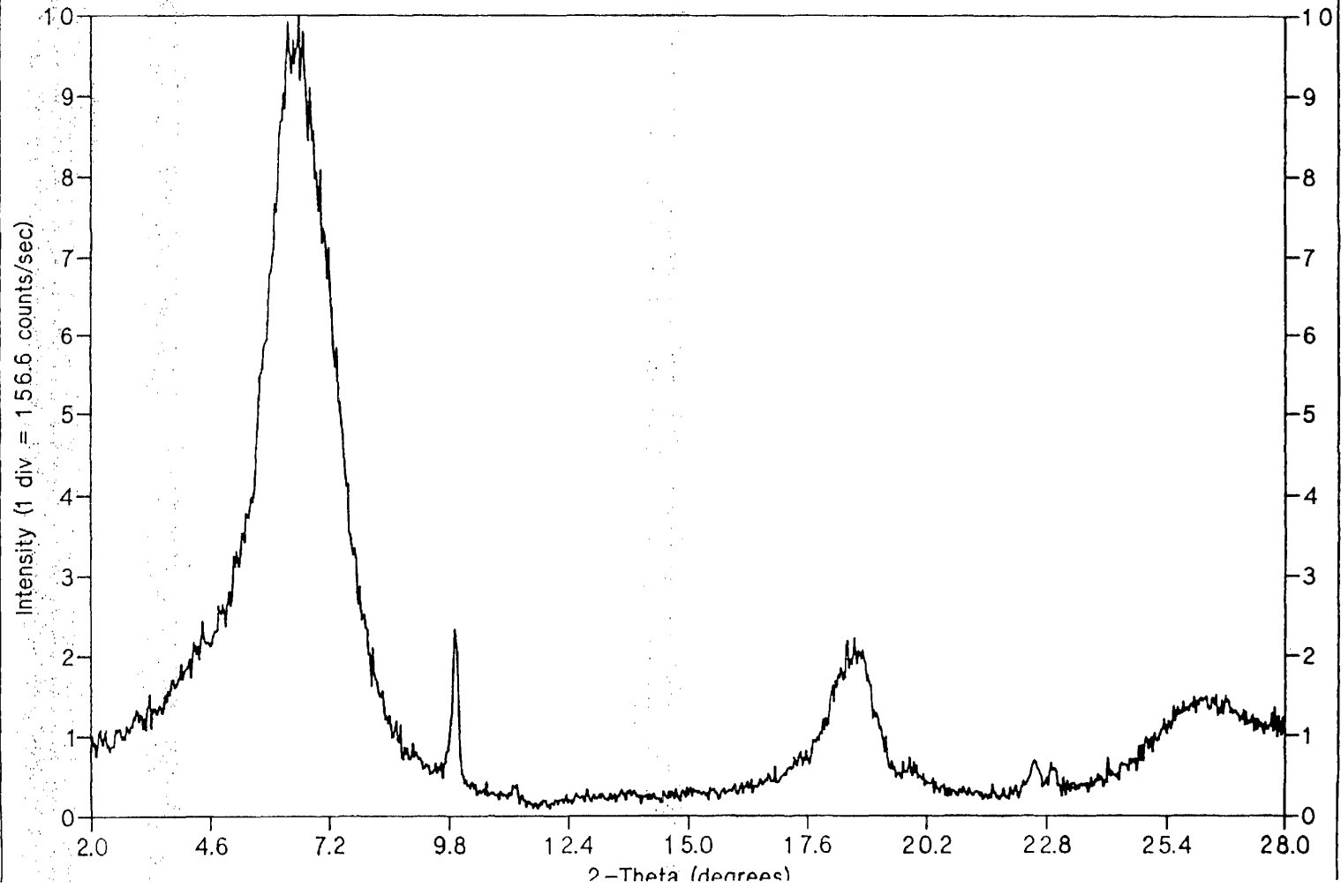
NARSA007.RD / FISH CREEK/1 - 4/830/<2 GOL



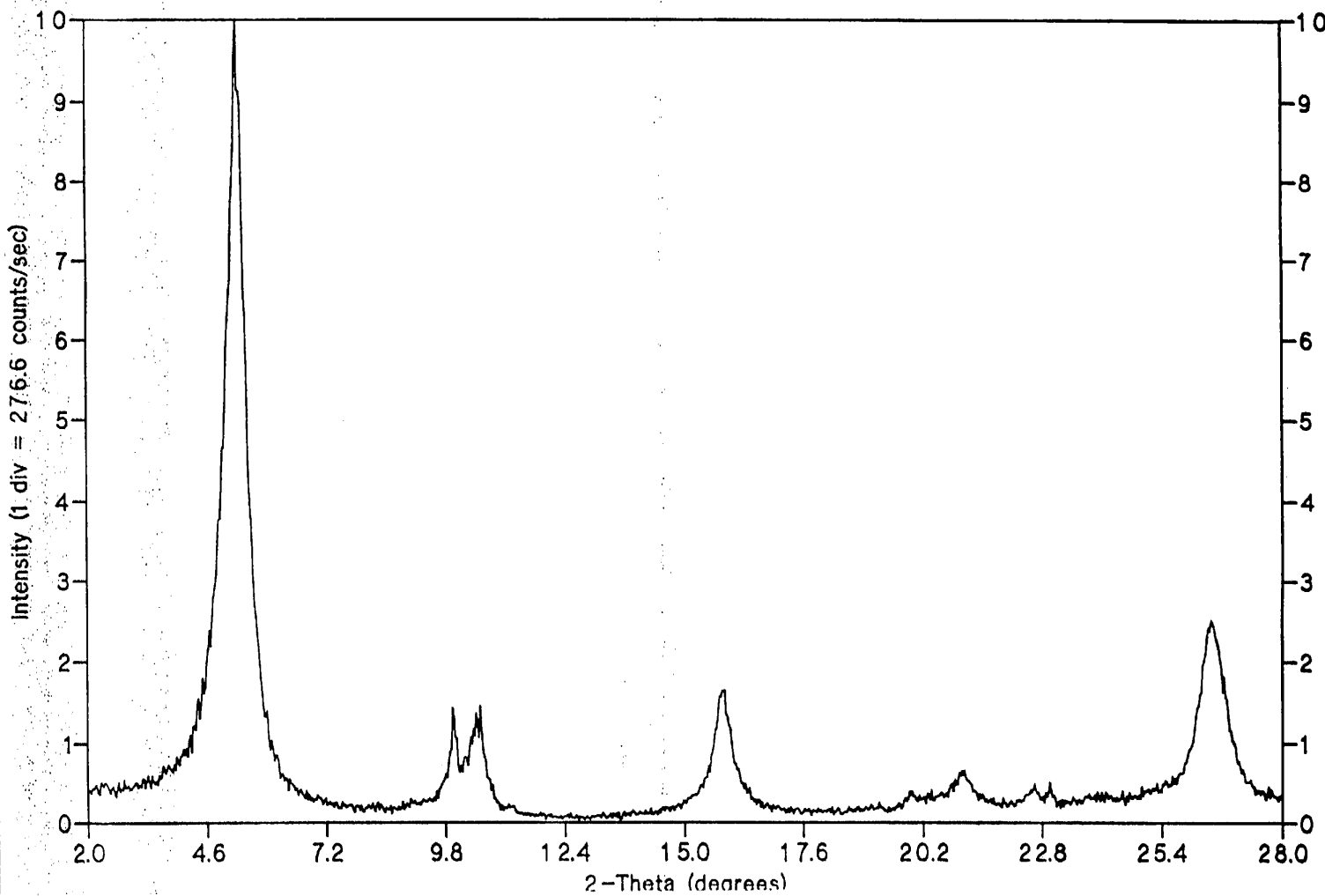




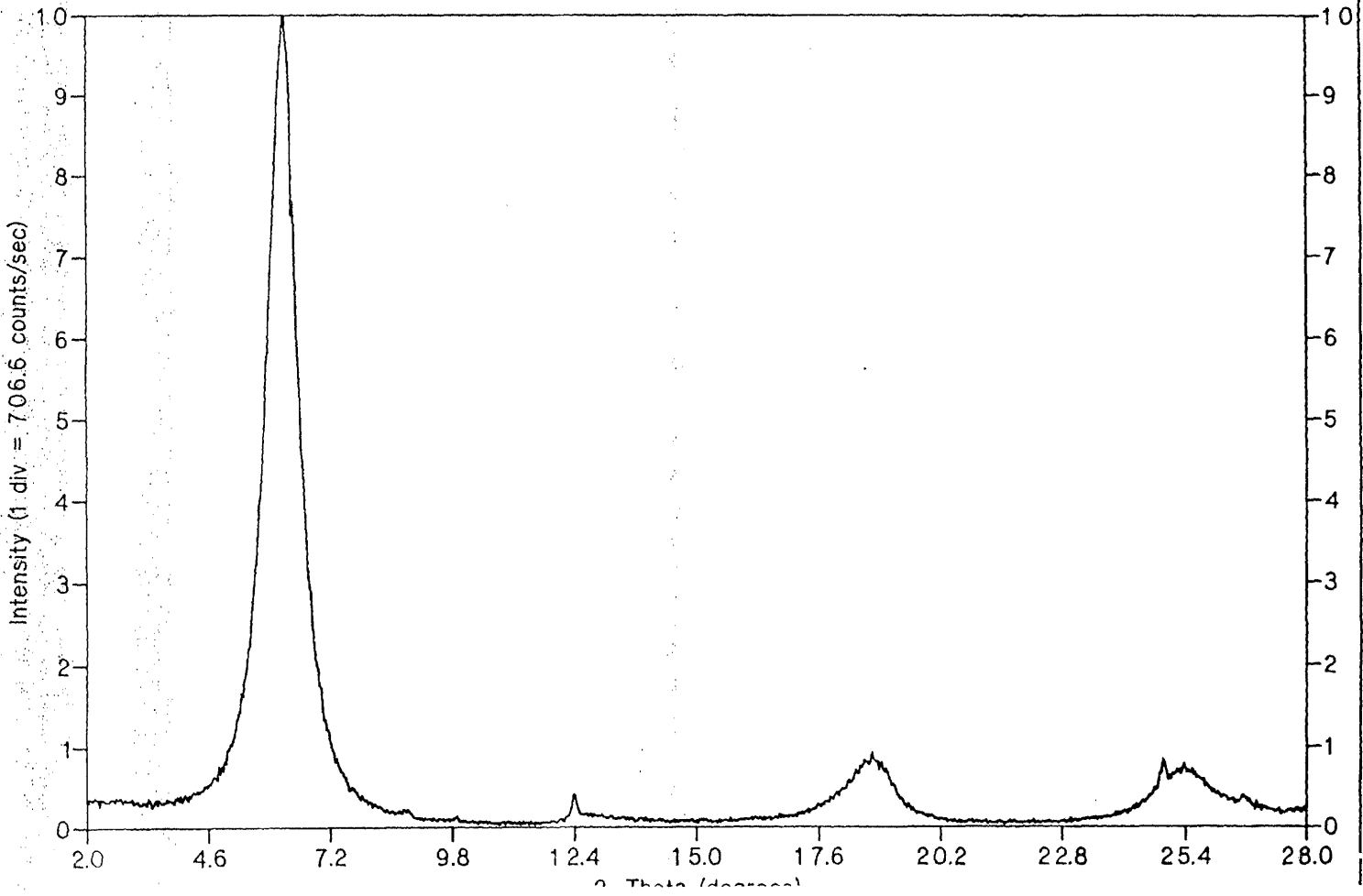
NARSA008.RD / FISH CREEK/1 -1 0/1 646/<2/COL



NARSG008.RD / FISH CREEK/1 -1 0/1 646/<2 GLY.

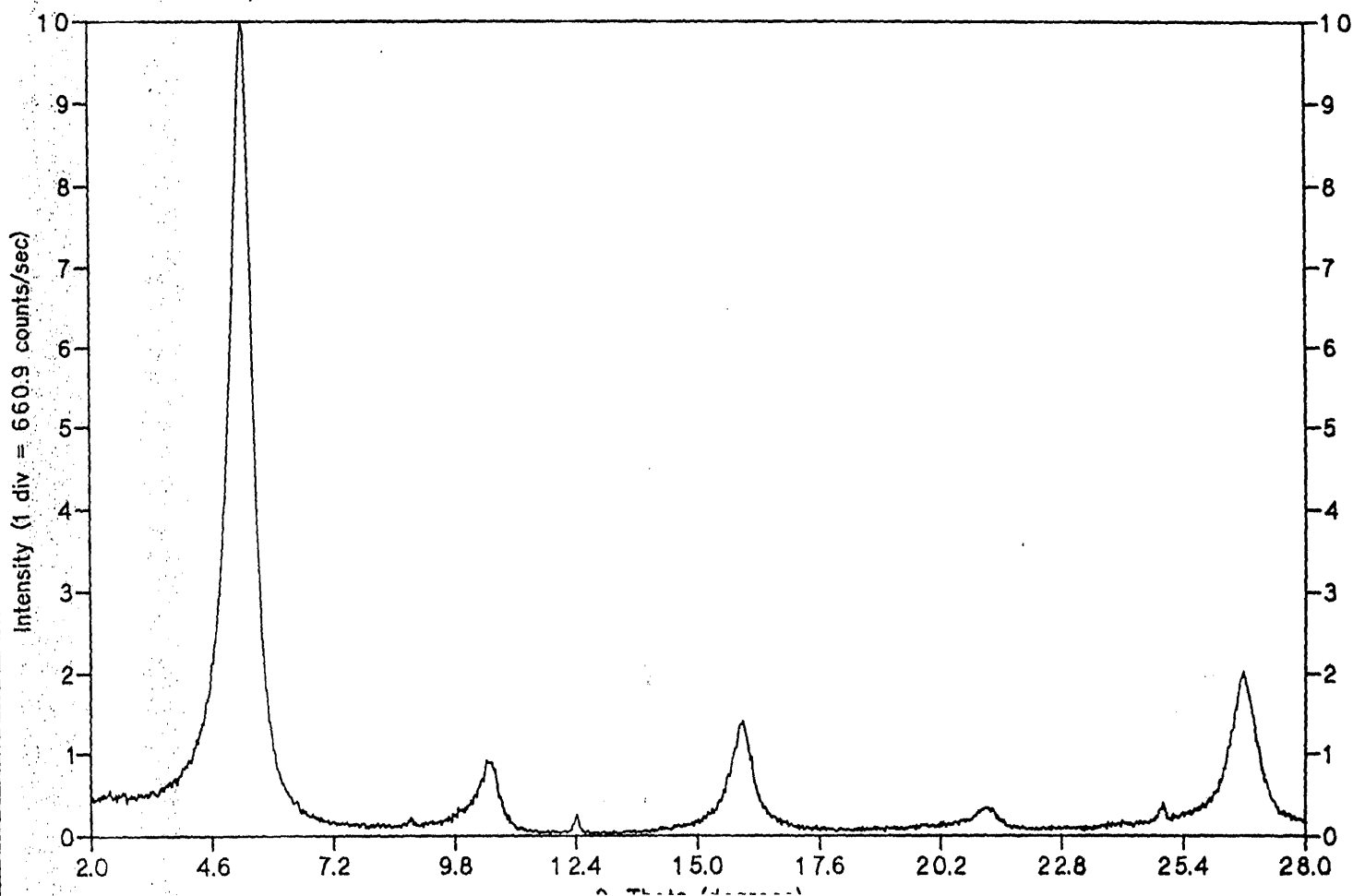


NARSA009.RD / UMIAT/1 -42/4495-8/<2 COL\*

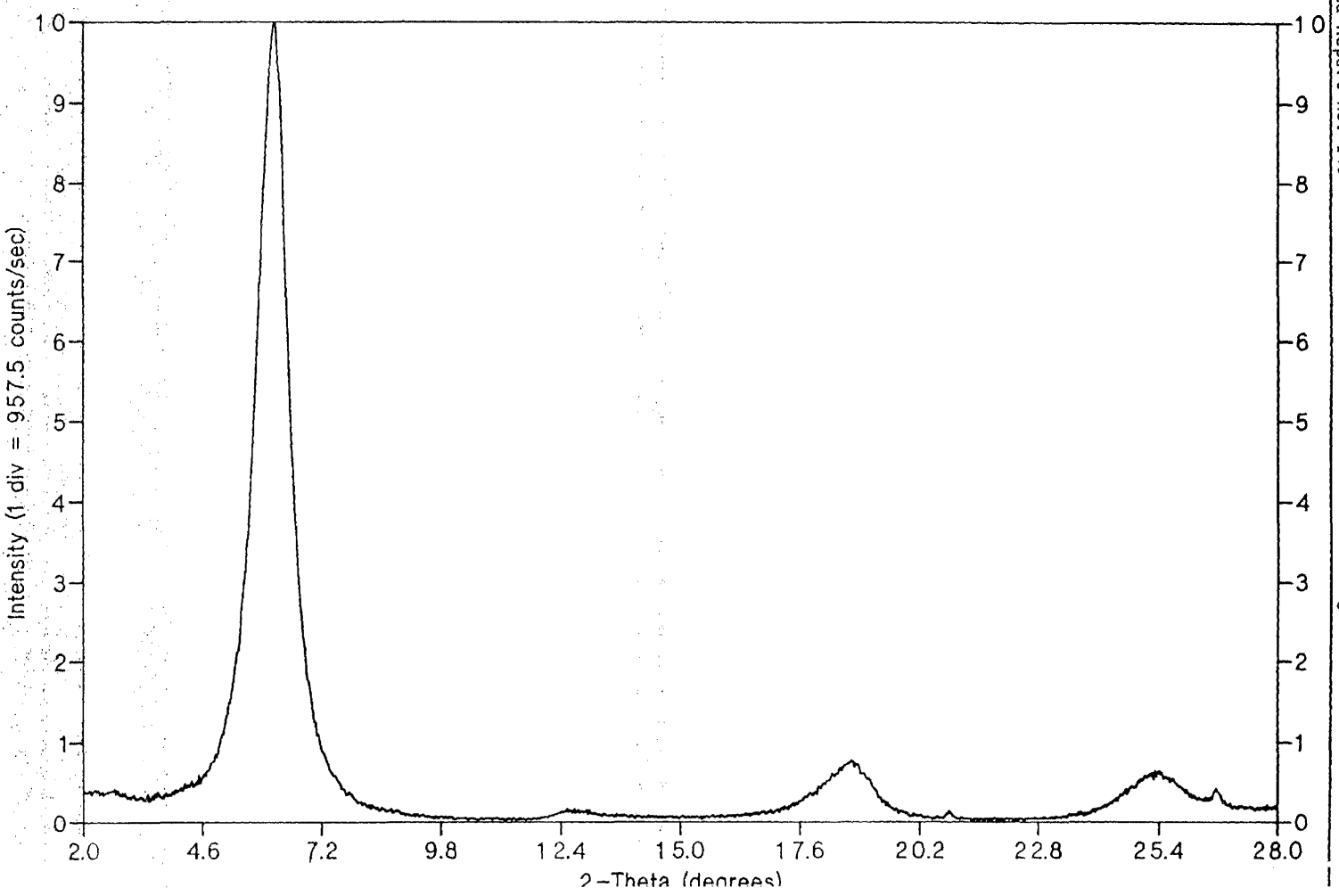


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NARSG009.RD / UMIAT/1-42/4495-8/2 GLY/COL



NARSA010.RD / UMIAT/507-8/<2 COL\*



RAW DATA

NARS0010.RD / UMIAT/507-8/<2 GLY/COL\*

