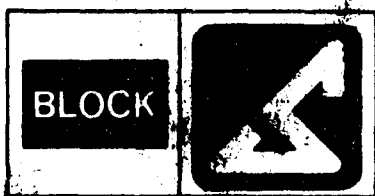


MINERALS
IR Grating Spectra
Volume 1
MN 1 K - MN 300 K
With INDEX



SADTLER RESEARCH LABORATORIES, INC.

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INFRARED GRATING SPECTRA

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MINERALS
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This is a collection of 300 infrared absorption spectrograms of materials which occur naturally as ores. The samples were selected to represent the common minerals which will provide discernible absorption spectra.

All compounds included in the publication have been run as KBr wafers; each sample was ground with KBr and the wafer prepared was dried overnight in a vacuum oven at 50°C then further dried over phosphorous pentoxide to eliminate any moisture present from the potassium bromide.

The spectra were scanned on a Perkin-Elmer 621 high resolution grating spectrophotometer in the spectral region 4000 cm^{-1} to 250 cm^{-1} , and are presented on a linear transmittance vs. wave-number format.

Each spectrogram is labelled with the mineral's name, composition (when available), source of the sample and method of spectra preparation. In some cases the geographic origin of the material and its catalog number in the National Museum of Natural History is also shown.

An alphabetical index of the materials according to the mineral name is furnished with the collection.

Acknowledgement

We wish to express our sincere thanks to Mr. John F. White, Jr., of the National Museum of Natural History, Smithsonian Institute, for his efforts in providing the mineral samples included in this publication.

GRATING

ACANTHITE / ARGENTITE /	MN 1K
ACHITE	MN 2K
ACTINOLITE	MN 3K
ADAMITE	MN 4K
AEGERINE	MN 5K
ALBITE	MN 6K
ALLANITE	MN 7K
ALLOPHANE	MN 8K
ALMANDITE	MN 9K
ALUNITE	MN 10K
ANALCIME	MN 11K
ANDALUSITE	MN 12K
ANDRADITE	MN 13K
ANHYDRITE	MN 14K
ANKERITE	MN 15K
ANNABERGITE	MN 16K
ANTHOPHYLLITE	MN 17K
ANTIGORITE	MN 18K
ANTLERITE	MN 19K
APATITE	MN 20K
APOPHYLLITE	MN 21K
AREVEDSONITE	MN 22K
ASTROPHYLLITE	MN 23K
ATACAMITE	MN 24K
AUGITE	MN 25K
AXINITE	MN 26K
AZURITE	MN 27K
BABINGTONITE	MN 28K
BARITE	MN 29K
BEIDELLITE	MN 30K
BENITOITE	MN 31K
BERYL	MN 32K
BIOTITE	MN 33K
BLOEDITE	MN 34K
BORAX	MN 35K
BRAZILIANITE	MN 36K
BROCHANTITE	MN 37K
BRONZITE	MN 38K
BRUCITE	MN 39K
BUDDINGTONITE	MN 40K
BUERGERITE	MN 41K
CALCITE	MN 42K
CANCRINITE	MN 43K
CARNALLITE	MN 44K
CARNOTITE	MN 45K
CASSITERITE	MN 46K
CATAPLEIITE	MN 47K
CERUSSITE	MN 48K
CHABAZITE	MN 49K
CHALCANTHITE	MN 50K
CHALCOCITE	MN 51K
CHALCOPYRITE	MN 52K
CHLORAPATITE	MN 53K
CHONDRODITE	MN 54K
CHROMITE	MN 55K
CHRYSOCOLLA	MN 56K
CHRYSOTILE	MN 57K
CHRYSOTITE	MN 58K
CINNABAR	MN 59K
CLINOZOISITE	MN 60K
COLEMANITE	MN 61K
COLUMBITE	MN 62K
CORDIERITE	MN 63K
CORUNDUM	MN 64K
CREEDITE	MN 65K

SADTLER COMMERCIAL SPECTRA

MINERALS, GRATING ALPHABETICAL INDEX, INFRARED

	GRATING
CROCIDOLITE	MN 66K
CROCOITE	MN 67K
CRYOLITE	MN 68K
CUMINGTONITE	MN 69K
CUPRITE	MN 70K
CUPROSKLODOWSKITE	MN 71K
DANALITE	MN 72K
DANBURITE	MN 73K
DATOLITE	MN 74K
DESCLOIZITE	MN 75K
DICKITE	MN 76K
DIOPSIDE	MN 77K
DIOPTAISE	MN 78K
DOLOMITE	MN 79K
DRAVITE	MN 80K
DUMORTIERITE	MN 81K
ELBAITE	MN 82K
ENARGITE	MN 83K
ENSTATITE	MN 84K
EPHESITE	MN 85K
EPIDOTE	MN 86K
EPSOMITE	MN 87K
ERYTHRITE	MN 88K
EUCLASE	MN 89K
EUCRYPTITE	MN 90K
EUDIALYTE	MN 91K
FERBERITE	MN 92K
FERGUSONITE	MN 93K
FLUORITE	MN 94K
FORSTERITE	MN 95K
FRANCEVILLITE	MN 96K
FRANKLINITE	MN 97K
GADOLINITE	MN 98K
GAHNITE	MN 99K
GARNIERITE	MN100K
GAYLUSSITE	MN101K
GIBBSITE	MN102K
GLAUBERITE	MN103K
GLAUCONITE	MN104K
GLAUCOPHANE	MN105K
GHELINITE	MN106K
GOETHITE	MN107K
GROSSULARITE	MN108K
GYPHUM	MN109K
HACKMANITE	MN110K
HALITE	MN111K
HALLOYSITE	MN112K
HARMOTOME	MN113K
HASTINGSITE	MN114K
HECTORITE	MN115K
HEDENBERGITE	MN116K
HEMATITE	MN117K
HEMIMORPHITE	MN118K
HERCYNITE	MN119K
HERDERITE	MN120K
HEULANDITE	MN121K
HEWETTITE	MN122K
HISINGERITE	MN123K
HOLMQUISTITE	MN124K
HOPEITE	MN125K

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MINERALS,

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	GRATING
HORNBLENDE	MN126K
HOWLITE	MN127K
HUEBNERITE	MN128K
HYDROXYL-APATITE	MN129K
HYDROZINCITE	MN130K
HYPERSTHENE	MN131K
IDOCRASE	MN132K
ILMENITE	MN133K
ILVAITE	MN134K
INESITE	MN135K
INYOITE	MN136K
JADEITE	MN137K
JAMESONITE	MN138K
JAROSITE	MN139K
JEFFERSONITE	MN140K
KAOLINITE	MN141K
KERNITE	MN142K
KROHNKITE	MN143K
KURNAKOVITE	MN144K
KUTNAHORITE	MN145K
KYANITE	MN146K
LABRADORITE	MN147K
LAMPROPHYLLITE	MN148K
LAUMONTITE	MN149K
LAWSONITE	MN150K
LAZULITE	MN151K
LAZURITE	MN152K
LEADHILLITE	MN153K
LEGRANDITE	MN154K
LEPIDOLITE	MN155K
LEUCITE	MN156K
LINARITE	MN157K
LO/E/LLINGITE	MN158K
LUDLAMITE	MN159K
LUZONITE	MN160K
MAGNESITE	MN161K
MALACHITE	MN162K
MANGANITE	MN163K
MARGARITE	MN164K
MEIONITE	MN165K
MELANTERITE	MN166K
MESOLITE	MN167K
META-AUTUNITE	MN168K
MICROCLINE	MN169K
MICROLITE	MN170K
MILARITE	MN171K
MIMETITE	MN172K
MINIUM	MN173K
MOLYBDITE	MN174K
MONAZITE	MN175K
MONTMORILLONITE	MN176K
MORDENITE	MN177K
MOTTRAMITE	MN178K
MUSCOVITE	MN179K
NAGYAGITE	MN180K
NATROLITE	MN181K
NEPHELINE	MN182K

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	GRATING
NEPTUNITE	MN183K
NONTRONITE	MN184K
NORTHUPITE	MN185K
OKENITE	MN186K
OLIGOCLASE	MN187K
OLIVENITE	MN188K
OPAL	MN189K
ORPIMENT	MN190K
ORTHOCLASE	MN191K
PAPAGOITE	MN192K
PARAGONITE	MN193K
PARAMOPEITE	MN194K
PARAUAUXITE	MN195K
PARISITE	MN196K
PECTOLITE	MN197K
PENNINITE	MN198K
PETALITE	MN199K
PHENAKITE	MN200K
PHILLIPSITE	MN201K
PHLOGOPITE	MN202K
POLLUCITE	MN203K
POLYCRASE	MN204K
PREHNITE	MN205K
PRICEITE	MN206K
PROBERTITE	MN207K
PROUSTITE	MN208K
PURPURITE	MN209K
PYRARGYRITE	MN210K
PYRITE	MN211K
PYROLUSITE	MN212K
PYROMORPHITE	MN213K
PYROPE	MN214K
PYROPHYLLITE	MN215K
PYROXMANGITE	MN216K
PYRRHOTITE	MN217K
QUARTZ	MN218K
RASPITE	MN219K
REALGAR	MN220K
RHODIZITE	MN221K
RHODOCHROSITE	MN222K
RHODONITE	MN223K
RICHTERITE	MN224K
RIEBECKITE	MN225K
ROCKBRIDGEITE	MN226K
SALESITE	MN227K
SAMARSKITE	MN228K
SANIDINE	MN229K
SCHEELITE	MN230K
SCHORL / TOURMALINE /	MN231K
SCHORLOMITE	MN232K
SCOLECITE	MN233K
SCORODITE	MN234K
SEARLESITE	MN235K
SENARMONTITE	MN236K
SEPIOLITE	MN237K
SERANDITE	MN238K
SHATTUCKITE	MN239K
SHERIDANITE	MN240K
SIDERITE	MN241K
SILLIMANITE	MN242K

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	GRATING
SMITHSONITE	MN243K
SODALITE	MN244K
SPENCERITE	MN245K
SPESSARTITE	MN246K
SPINEL	MN247K
SPODUMENE	MN248K
STAUROLITE	MN249K
STIBICONITE	MN250K
STILBITE	MN251K
STOLZITE	MN252K
STRONTIANITE	MN253K
TALC	MN254K
TANTALITE	MN255K
TARBUITITE	MN256K
TFALLITE	MN257K
TELLURIUM	MN258K
TEPHROITE	MN259K
TETRAHEDRITE	MN260K
THAUMASITE	MN261K
THENARDITE	MN262K
THOMSONITE	MN263K
THORIANITE	MN264K
THORITE	MN265K
THORTVEITITE	MN266K
TINCALCONITE	MN267K
TIRODITE	MN268K
TITANITE /SPHENE/	MN269K
TODORVOKITE	MN270K
TOPAZ	MN271K
TORBERNITE	MN272K
TREMOLITE	MN273K
TRIPHYLLITE	MN274K
TRONA	MN275K
TUNELLITE	MN276K
TUNGSTENITE	MN277K
TURQUOISE	MN278K
TYROLITE	MN279K
TYUYAMUNITE	MN280K
ULEXITE	MN281K
URANINITE	MN282K
UVAROVITE	MN283K
VANADINITE	MN284K
VARISCITE	MN285K
VERMICULITE	MN286K
VESUVIANITE /IDOCRASE/	MN287K
VIVIANITE	MN288K
WAVELLITE	MN289K
WHEWELLITE	MN290K
WILLENITE	MN291K
WITHERITE	MN292K
WOLFRAMITE	MN293K
WOLLASTONITE	MN294K
WOLFENITE	MN295K
XENOTIME	MN296K
ZINCITE	MN297K
ZINNWALDITE	MN298K
ZIRCON	MN299K

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ZOISITE

GRATING
MN300K

51 - 011



ACANTHITE R7560

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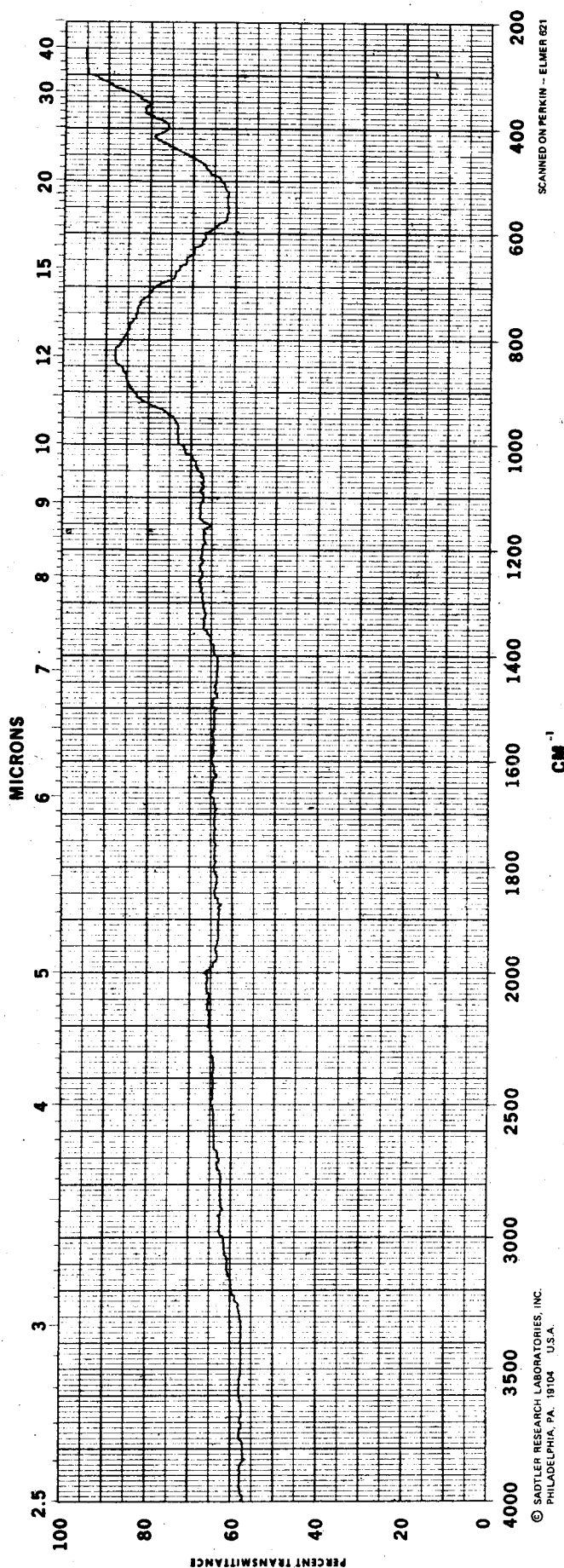
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Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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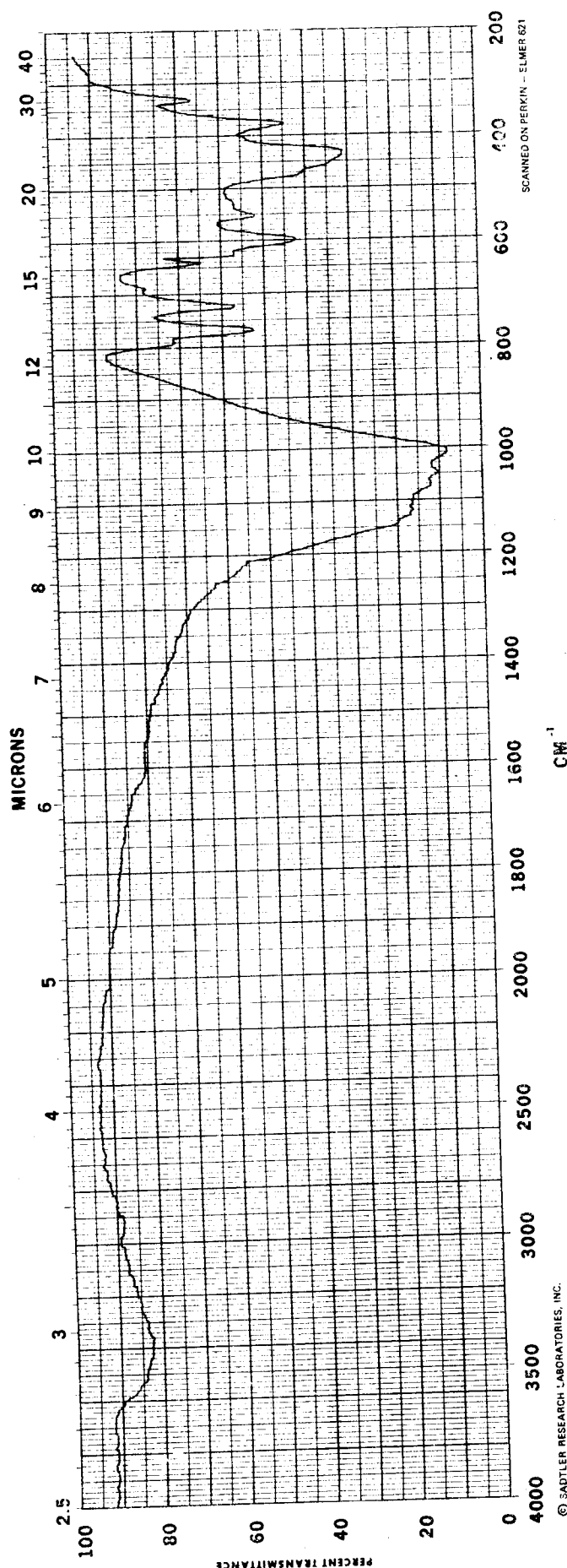
Composition: $\text{NaFe}^{+++}(\text{Si}_2\text{O}_6)$

Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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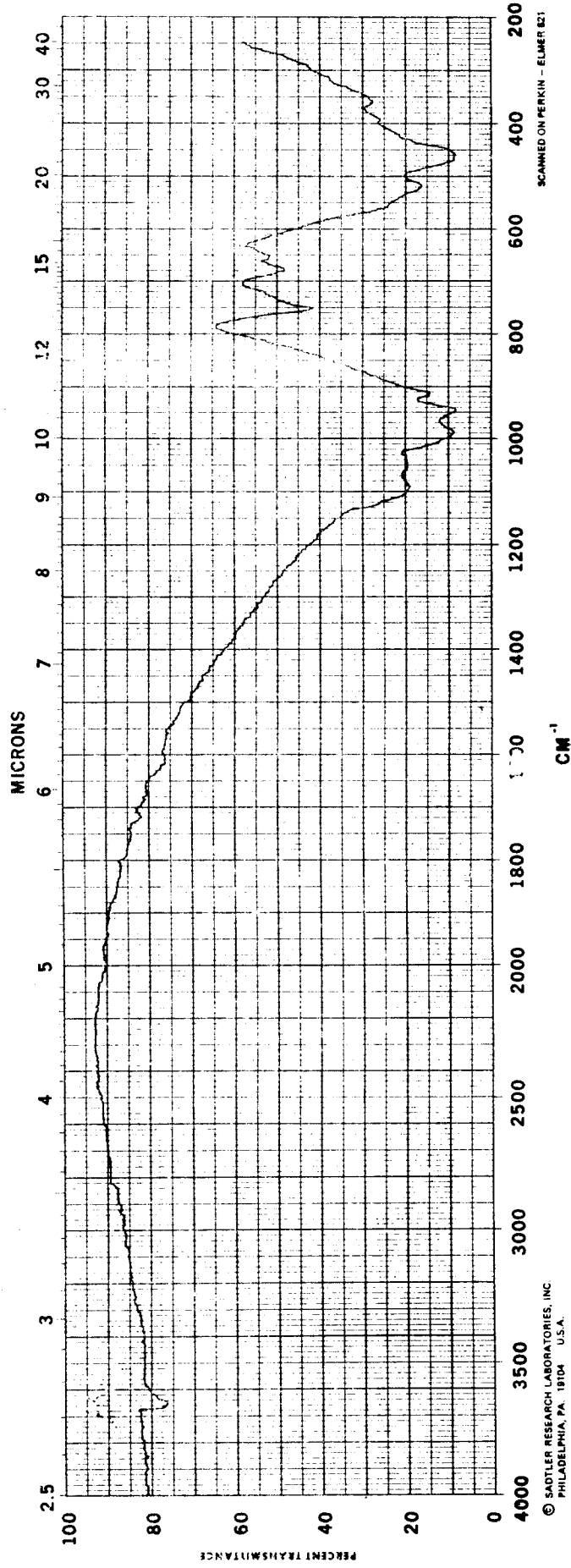
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Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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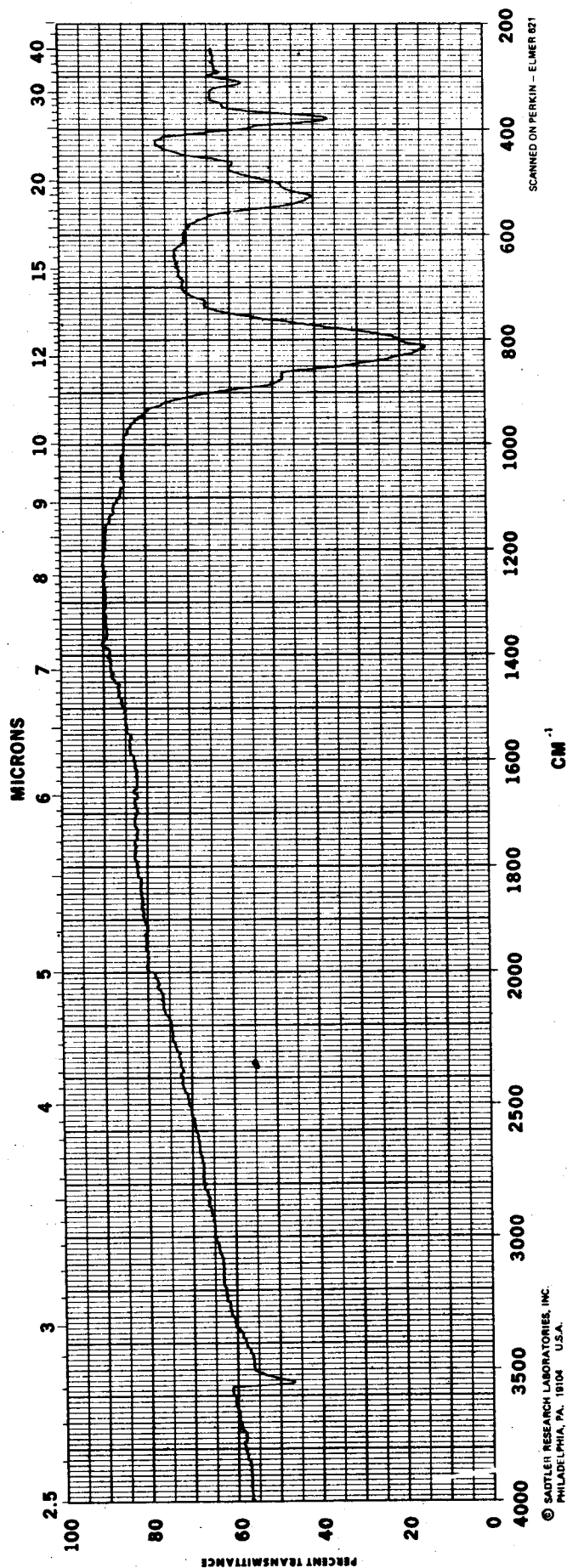
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Method: KBr Wafer

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MN 4K



AEIRINE 104765

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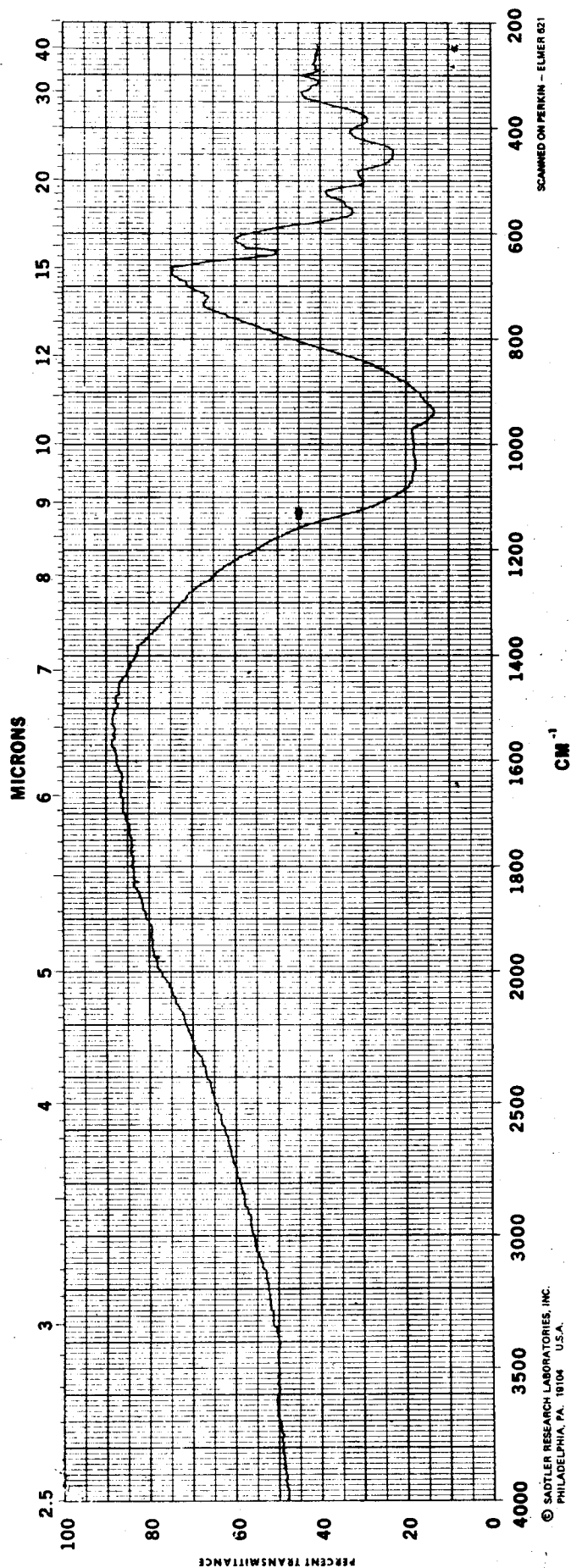
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Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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MN 5K



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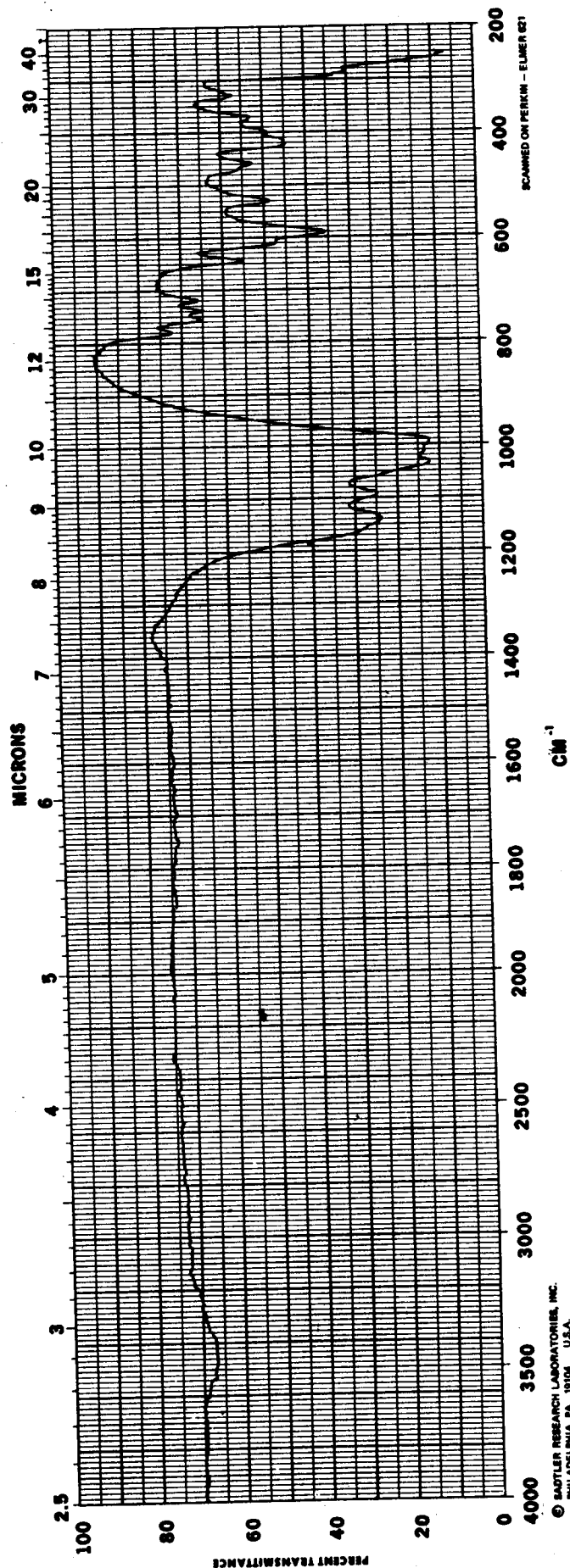
Composition: $\text{Na}(\text{AlSi}_3\text{O}_8) - \text{Ab}_{90}\text{An}_{10}$

Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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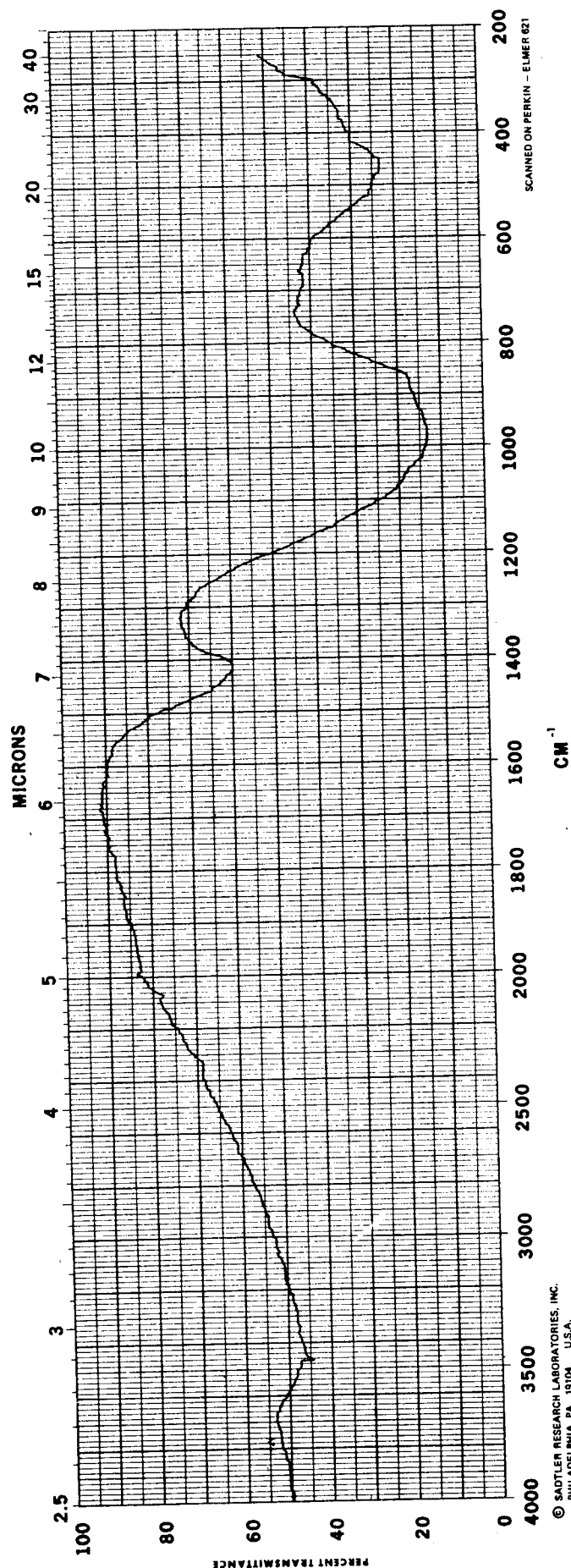
Composition: $X_2Y_3O(SiO_4)(Si_2O_7)(OH)$

Source: National Museum of Natural History
Smithsonian Institution

Method: KBr Wafer

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