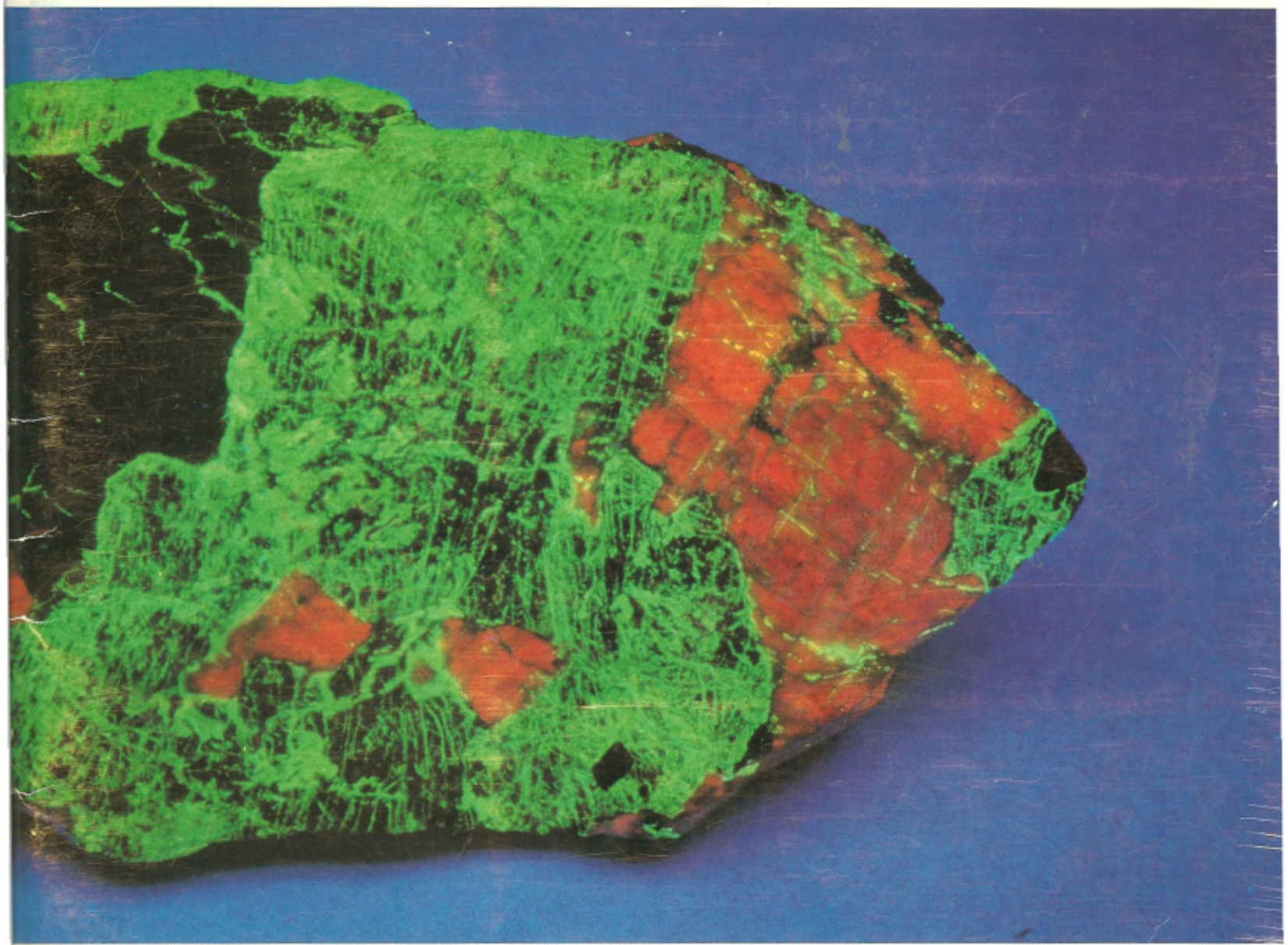
SPEX CATALYSTS

HANDBOOK-CATALOG



- ORGANOMETALLICS
- HOMOGENEOUS CATALYSTS
- HETEROGENEOUS CATALYSTS
- PRECIOUS METAL CHEMICALS
- LIGANDS

SPEX INDUSTRIES, INC. · 3880 PARK AVENUE · METUCHEN, N.J. 08840 · ☎ (201)-549-7144

Contents/Index

FOREWORD

This Catalog/Handbook initiates a new service to Catalytic Chemists. We offer a unique catalyst selection which is documented with extensive references and analyzed to provide a range of assured purities.

SPEX LITERATURE SEARCHES
We have searched the scientific literature, particularly that of the last five years, to determine which catalysts are being most used. Our chemicals listing reflects this and references are given with each item. Our continuing research also alerts us to potentials for new catalysts before they are widely known. We expect to remain in touch with our catalyst customers from time to time with further reports, suggestions, and application references.

PURITY - Custom Catalyst Standards
Our range of guaranteed purities eliminates your catalyst selection guesswork. The service we offer is unique. We can prepare a particular catalyst in three purities for you: 1000 parts per million of trace metal impurities, or 100 TMI, or 10 TMI. Price, of course, will depend on the required purity so you will want to standardize on the 10 TMI material only if it improves your results. Should one of the lesser purities be advantageous for your purposes, however, our analysis will indicate the specific impurities and their levels. In the event that any of these proves helpful by a synergistic effect, we can supply such specially doped catalysts for your further trials.

HETEROGENEOUS CATALYSTS
Among our heterogeneous catalysts the same metal is available on a given support in several different load levels. Generally, the reaction characteristics are similar for all types of a specific metal/support combination. Usually the lower load catalysts will be more highly dispersed and, thus, more reactive on a unit weight of metal basis. Higher load catalysts are generally less well dispersed. Frequently reaction selectivity can be enhanced by a less dispersed catalyst.

Besides the classic hydrogen techniques involving hydrogen gas as a reactant, catalysts can also promote the transfer of hydrogen from one species to another. These hydrogen sources are materials which are readily dehydrogenated such as hydrazine, cyclohexene, isopropyl alcohol, tetralin and the like. For a review on Transfer Hydrogenation see: G. Brieger and J.T.Nestrick, Chem.Rev.,74, 567-80 (1974).

DISCLAIMER OF WARRANTEES
The information contained in this catalog is furnished free of charge and is based on published applications and references which SPEX believes to be reliable.

It is intended for use by persons who are technically informed at their own discretion and risk. Since conditions will vary and are outside our control, we make no warranty, express or implied, and assume no liability in connection with any of this information.

Nothing herein is to be taken as a license to operate under our recommendation to infringe any patents.