

Index to Microfilm of Dr. M. Pier  
XVIII Lubrication and Lubricants

	<u>Pages</u>
Data for Rumanian lube oil production	1 - 27
Today's conception of propane process	28 - 33
"Paraflow"	34 - 43
Literature survey of ethylene lube oils	44 - 47
<del>Addition of sulfur to ester lube oils</del>	<del>48</del>
Report on research on propylene lube oils	49 - 50
Patent situation on propane operations outside of Germany	51 - 78
Use of additives in auto lube oils	79 - 89
Calculations basis for hydrogenation aviation motor oil from propane operations	90 - 92
Making propylene greases	93 - 96
Production of aviation motor oil from Nearn oil	97 - 109
Drying oils by high frequency electric current	110 - 111
Concerning aviation motor oil	112 - 113
Hydrogenation of petroleum wax for lube oil synthesis	114 - 134
Test of lube oil	135 - 136
Synthetic Steam Cylinder oil	137 - 139
High Pressure research on synthetic lubes	140 - 145
On processing propylene to lube oil	146 - 149
Hydrogenation processing of hard wax (from Fischer-Tropsch) over 8376 at 250 atm	150 - 172
Synthetic aviation motor oils from alpha-olefins C <sub>6</sub> - C <sub>18</sub>	173 - 197
Propylene lube oil	198 - 201
Steam cylinder oil by hydrogenation	202 - 204
Analysis of what constituents lubricating ability of an oil	205 - 213
Talk on synthetic steam cylinder oil	214 - 215
XIX Mechanical Data	
Sizing letdown vessels and bursting disk lines	216 - 220

XX Patents

Pages

Process for the concentration of oxidizing ores and polar "non-ores" thru flotation	221 - 224
Process for separating heavier oils into their components	225 - 228
Process for extraction of bituminous materials	229 - 231
<u>XXI Physical Data and Phenomena, etc.</u>	
Adsorption on solid substances	232 - 238
Use of electron diffraction on the investigation of gas adsorption	239 - 240
On the problem of ball lightning	241 - 246
Calculating the Joule Thompson effect for hydrogen	247 - 257
Abrasion and lubrication	258 - 260
On the Nernst Theorem	261
On the structure of fluids	262 - 263
Light absorption and constitution of some polycyclics	264 - 270
Roentgen investigation of Mo - Al <sub>2</sub> O <sub>3</sub> and active Al <sub>2</sub> O <sub>3</sub> catalysts	271 - 273
Research on new explosives	274 - 275
Stability of fluorides in presence of H <sub>2</sub> S and H <sub>2</sub> O in view of their catalytic action	276 - 278
Theory on the formation of higher hydrocarbons from methane in presence of sulfur or sulfur compounds	279 - 284
The problem of back-firing in large arc-rectifiers, and the collateral problems of anode material, dirtying electrodes, etc.	285 - 291
Literature survey on arsenic and its compounds	292 - 296
New knowledge in the field of the aluminum chloride synthesis	297 - 300
Exhaust temperature and combustion temperature with gasoline of more and less aromatic content	301
25 years of Nernts' Thermodynamics	302 - 304
Molecule models	305 - 308
Physico-chemical discussions at Göttingen	309 - 310
Catalyst research thru electron diffraction	311

<u>XXI Physical Data and Phenomena, Etc:</u>	<u>Pages</u>
<u>Thermodynamics of Pyridene Synthesis after the Nernst approach formula</u>	<u>312 - 316</u>
Today's knowledge of super-conductivity at low temperatures	317 - 319
Crystal chemistry of Silicates	320 - 329
<u>Atomic structure of WS<sub>2</sub> and MoS<sub>2</sub> skeletons</u>	<u>330 - 334</u>
Chronology of thermodynamics	335 - 338
A short basis for the electrochemical work of Nernst	339 - 343
Use of supersonic phenomena in practical chemistry	344 - 348
Fluorescent colors of several substances in paraffin oil with normal and ultraviolet light	349
Constitution of the hydrogenation products by light absorption (detection of coronene, pyrene)	350 - 352
Fluorescence and phosphorescence	353
Recovery of Pyridene	354 - 357
New researches into lignin chemistry	358 - 362
Synthesis of Acetic acid. Thermodynamic calculations	363 - 365
Possibility of reducing ice-fog formation in engine exhaust	366 - 374
Free radicals	375 - 388
 <u>XXII Properties of Materials</u> <hr/>	
Isomeric Paraffins	389 - 402
Inspection of Pölitz fuel oil	403 - 408
Quality of Petroleum products	409
Quality of comparison of cracked and hydrogenated gasoline from bituminous coal B middle oil	410 - 432
 <u>XXIV Shale oil</u>	
Low pressure treatment of concentrate from Estonia shale	433 - 443
TTH operation on Lurgi carbonization tar from shale	444 - 456
The Rostin process	457 - 458
Autoclave work on Estonian shale	459 - 460

<u>XXIV Shale Oil</u>	<u>Pages</u>
<u>Research on concentrating shale</u>	461 - 464
<u>Data for shale oil hydrogenation</u>	465
<u>Test on swedish shale</u>	466 - 469
<u>Concerning estonian oil shale</u>	470 - 472
<u>Ashfree bitumen from Estonian Shale flotation concentrate</u>	473 - 474
<u>Hydrogenation research on shales and shale concentrates</u>	475 - 479
<u>Concentrating the organic material in Estonian Shale</u>	480 - 481
<u>Autoclave treatment of Messel mine shale</u>	482 - 483
<u>Disassembly of the Estonian Shale oil industry</u>	484 - 496
<u>XXV Tar Hydrogenation, Etc.</u>	
<u>Research report on running coal tar from bituminous coal at high thruputs to make excess heavy oil at 600 atm. in 10 liter converter, 1940</u>	497 - 520
<u>First Evaluation on hydrogenation of primary bitumen</u>	521 - 523
<u>Running the vacuum Distillate from the cold catchpot heavy oil at 600 atmospheres over fixed catalyst 8376 to produce Diesel oil with a low pour point</u>	524 - 528
<u>The Blumner pressure carbonization operation</u>	529 - 531
<u>Research with sulfur as liquid-phase catalyst in one liter converter</u>	532 - 537
<u>Research report on running Welheim pitch mixture at high rates to make excess heavy oil at 600 atmospheres in 10 liter converter</u>	538 - 566
<u>Research report on running Brux tar to gasoline and middle oil only at 600 and 250 atm in 10 liter converters</u>	567 - 623
<u>Research report on running topped Ruhr coke oven tar to gasoline and middle oil at 600 atm</u>	624 - 662
<u>Research report on running a mixture of topped coke oven tar to an excess of heavy oil in 10 liter converter</u>	663 - 696
<u>Research report on running low temperature carbonization pitch to heavy oil excess at 600 atm in 10 liter converter</u>	697 - 730

XXV Tar Hydrogenation, Etc.	<u>Pages</u>
<u>Research report on running a soft coal tar mixture for Politz at 600 atm to gasoline and middle oil</u>	<u>731 - 754</u>
Research on some special bituminous materials	755 - 759
Running middle Germany brown coal tar at 600 atm	760 - 767
<u>Talk on Brux tar conversion</u>	<u>768 - 769</u>
Influence of available hydrogen and volatile on the low temperature carbonization tar yield and dependence of the hydrogenability on low temperature tar yield available hydrogen and volatile	770 - 772
<u>Petroleum residue hydrogenation</u>	<u>773 - 776</u>
Fuel oil from coke oven tar	777 - 779
Discussions on tar stalls feeding Brux tar	780 - 781
<u>Tar processing</u>	<u>782 - 794</u>
Working up Petroleum Pressure distillate over 7878 and 6434 to 87 grade fuel	795 - 807
Running Bohlen tar at 250 atm in 10 liter converter	808 - 812
<u>XXVI Vapor Phase - Hydrogenation</u>	
Relation between acid and basic constituents of middle oil from bituminous coal hydrogenation in the saturation step over alumina catalyst	812 - 817
Methyl cyclopentane from benzol or cyclohexane	818 - 820
<u>Aromatization of middle oil from bituminous coal hydrogenation at 600 atm</u>	<u>821 - 824</u>
New research (Jan. 1941) on saturation of middle oil from bituminous and brown coals over Mo catalysts in 1 liter converter	825 - 847
New saturation catalyst tests (Jan. 1942)	848 - 857
Hydrogenation of brown coal middle oil over Ruhrol catalyst	858 - 863
Hydrogenation of bituminous coal middle oil from upper Silesian coal in 1 liter converter. One-step conversion at 600 atm with and without DHD	864 - 890
Saturation and splitting of various raw materials available at Brux	891 - 903
Splitting of 8376-B middle oil from semi-technical plant in small scale plant.	904 - 909

XXVI Vapor Phase - Hydrogenation

Pages

Hydrogenation of Benzol to Cylohexane	910 - 911
<del>Shutdown of a vapor phase stall</del>	<del>912 - 913</del>
Research on saturation of bituminous coal middle oil over 7846W250 catalyst	914 - 927
Research to refine aviation gasoline and other products over $Al_2O_3$ W-Ni Catalyst	928 - 936
Investigation run in small plant parallel to semitechnical work in stall 805. Long-time test of 600 atm splitting of middle ore over Fullers earth catalyst	937 - 950
600 atm aromatization of liquid phase oil from a Silesian coal compared with Scholven coal over cat. 7978	951 - 957
Splitting of DHD residues	958 - 984
Aromatization of brown coal hydrogenation ore at 540 atm over Fullers earth	985 - 992
Testing of new saturation catalysts	993 - 996
Effect of sulfurization during single stage 600 atm splitting of bituminous coal middle oil over Fullers earth	997 - 1001