

BIBLIOGRAPHY OF PHARMACEUTICAL RESEARCH

Compiled by A. G. DuMez, Reporter on the Progress of Pharmacy.

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APPARATUS AND MANIPULATIONS.

- Anon.
Apparatus for pharmaceutical manufacturing on a small scale
Schweiz. A poth.-Ztg., 72 (1934), 27, 112, 129
- Anon.
New suppository and bougie press
Farm. Revy, 33 (1934), 165
- Hirt, Georges
Modification of the Chamberland autoclave to permit of its use for the sterilization of surgical dressings
J. pharm. chim., 19 (1934), 162

PHARMACOPŒIAS AND FORMULARIES.

- Casparis, P.
Review of the new Swiss Pharmacopœia
Schweiz. A poth.-Ztg., 72 (1934), 25, 82, 93, 105, 121, 137
- Corfield, C. E.
Some notes on the revision of the British Pharmaceutical Codex
Pharm. J., 132 (1934), 279
- Harms, H.
Review of the new Swiss Pharmacopœia
A poth.-Ztg., 49 (1934), 259
- Schou, Svend Aage
Galenic preparations of the Danish Pharmacopœia, 1933
Arch. Pharm. og Chem., 41 (1934), 146, 177

PHARMACEUTICAL PREPARATIONS.

- Bateson, F. R. C., and Long, C. A.
Paraffin and agar emulsions
Pharm. J., 132 (1934), 228
- Beukema-Goudsmit, M.
Investigation of the formation of color in solutions of sodium salicylate and sodium bicarbonate
Pharm. Weekbl., 71 (1934), 196
- Brandrup, Wolfgang
Saponin as an emulsifying agent in pharmacy
Pharm. Zentralh., 75 (1934), 129

- Burgess, Geoffrey C.
The preparation of mercury ointment
Pharm. J., 132 (1934), 252
- Fantus, Bernard, Dyniewicz, H. A., and J. M.
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- Forster, W.
Ammoniated Solution of Quinine. Loss of ammonia on storage
Pharm. J., 132 (1934), 281
- Gfeller, Hans
New suppository base, hydrogenated peanut oil
Pharm. Acta Helv., 9 (1934), 13
- Horrmann, Paul, and Greve, Wilhelm
Investigation of the course of the reaction in the preparation of Emplastrum fuscum camphoratum, D. A. B. VI
Arch. Pharm., 272 (1934), 505
- Kuhn, A.
Investigation of homeopathic iron preparations
Pharm. Zentralh., 75 (1934), 131
- Lee, C. O., and Close, Marshall
A study of Aromatic Elixir
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- Madsen, C. J. Toft
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Dansk Tids. Farm., 8 (1934), 62
- Manson, T. H.
Pill medication
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- Rojahn, C. A., and Wieder, Hans
Size of colloidal particles in homeopathic preparations
Arch. Pharm., 272 (1934), 198
- Thomann, J.
Preparation of sterile solutions for injection
Pharm. Acta Helv., 9 (1934), 2
- Woodman, R. M.
Studies in emulsions. I. Proteins and allied substances as emulsifiers for phenolic liquids
J. Soc. Chem. Ind., 53 (1934), 57T

Wruble, Milton

Studies in percolation. Detannated tincture of cinchona

JOUR. A. PH. A., 23 (1934), 208

PHARMACOLOGY, TOXICOLOGY
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Amrhein, Florin J.

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Contribution to the knowledge of the influence of alkyl- and alkylmercapto-groups on the therapeutic activity of organic compounds

Arch. Pharm., 272 (1934), 257

Dille, James M.

The effect of ethylene glycol on the serum calcium of the rabbit

JOUR. A. PH. A., 23 (1934), 202

Fosdick, Leonard S., and Hansen, Harold L.

The toxicity and anesthetic efficiency of a new local anesthetic

J. Pharmacol. & Exper. Therap., 50 (1934), 323

Hampshire, C. H.

Standard preparations used in biological assay

Pharm. J., 132 (1934), 229

Horsley, C. H.

Investigation into the action of St. John's wort

J. Pharmacol. & Exper. Therap., 50 (1934), 310

Kaufmann, H. P.

Studies in the synthesis of new remedies. VII.

Contribution to the theory of the action of laxatives

Arch. Pharm., 272 (1934), 481

Krueger, H. M.

The effects of morphine and its derivatives on intestinal movements. I. Morphine and the codeine isomers

J. Pharmacol. & Exper. Therap., 50 (1934), 254

Kwit, Nathaniel T., and Gold, Harry

Further experimental observations on the combined effects of digitalis and quinidine on the heart

J. Pharmacol. & Exper. Therap., 50 (1934), 180

Lerman, J., and Salter, W. T.

The maintenance requirements of myxedema patients. Clinical and chemical assay of commercial thyroid preparations

J. Pharmacol. & Exper. Therap., 50 (1934), 298

Møller, Knud

Biological assay of medicinal preparations

Dansk Tids. Farm., 8 (1934), 41

Moness, E., and Christiansen, W. G.

Study of germicidal and antiseptic activities of some derivatives of 8-hydroxy quinoline

JOUR. A. PH. A., 23 (1934), 228

Rakieten, N., *et al.*

The effect of some compounds of barbituric acid and of urethane

J. Pharmacol. & Exper. Therap., 50 (1934), 328

Riggs, Lloyd K., *et al.*

Assay for vitamin B complex in the presence of interfering substances

JOUR. A. PH. A., 23 (1934), 191

Sabalitschka, Th.

Synthetic studies on the relationship between chemical constitution and antimicrobial action

Arch. Pharm., 272 (1934), 383

Scheer, Max, and Kiel, Harry

The skin eruptions of codeine

J. A. M. A., 102 (1934), 908

Smith, Francis M.

Treatment of Diabetes Insipidus by intranasal insufflation of posterior lobe pituitary powder

J. A. M. A., 102 (1934), 600

Tatum, A. L., and Cooper, G. A.

An experimental study of mapharsen (meta-aminopara-hydroxyphenylarsine oxide) as an antisiphilitic agent

J. Pharmacol. & Exper. Therap., 50 (1934), 198

White, John L., and Schlageter, Emil A.

Comparative immunizing value of diphtheria toxoid with and without alum, as indicated by the Schick test

J. A. M. A., 102 (1934), 915

BOTANY AND PHARMACOGNOSY.

Casparis, P., and Naef, P.

Resins of mastic and Manila elemi

Pharm. Acta Helv., 9 (1934), 19

Dieterle, H., *et al.*

Constituents of the stem bark of *Lophopetalum toxicum*

Arch. Pharm., 272 (1934), 172

Jaretsky, R., and Axer, B.

Contribution to the pharmacognosy of *Sarothamnus scoparius*, Koch and parallel drugs

Arch. Pharm., 272 (1934), 152

Keller, O.

Investigation of *Orthosiphon stamineus*, Benth

Arch. Pharm., 272 (1934), 242

Kondo, H., and Ikawa, S.

Investigation of the constituents of "Senso."

III

J. Pharm. Soc. Japan, No. 624 (1934), 22

Raymond-Hamet

A new Rubiaceæ, *Corynanthe paniculata* Welwitsch

J. pharm. chim., 19 (1934), 209

Rosenthaler, L.

Investigation of the constituents of laxative drugs

Pharm. Acta Helv., 9 (1934), 9

Sallet, Albert

Medicinal plants of Indo-China, Quisqualis indica L.

Bull. sci. pharmacol., 41 (1934), 72

Valaer, Peter, and Mallory, G. E.

A study of aloes and a quantitative determination of some of its constituents

Am. J. Pharm., 106 (1934), 81

Schlemmer, F., and Koch, H.

Titration method for alkaloidal determination

Arch. Pharm., 272 (1934), 394

Sipple, Horace L., King, C. G., and Beal, George D.

A study of the constituents in Cascara Sagrada Extract. I. Isolation of a rhamno-glycoside of emodin

Jour. A. Ph. A., 23 (1934), 205

Winterfeld, K., and Rauch, C.

Study of sparteine. IV

Arch. Pharm., 272 (1934), 273

ALKALOIDS AND GLUCOSIDES.

Amrhein, Florin J.

Notes on the assay of strychnine alkaloid in strychnine sulphate tablets

Am. J. Pharm., 106 (1934), 57

Dietzel, R., and K uhl, G. W.

Disintegration of alkaloids in aqueous solution, particularly on sterilization

Arch. Pharm., 272 (1934), 369

Drake, W. V., and McElvain, S. M.

The reaction of organic halides with piperidine.

IV. Bromo esters

J. Am. Chem. Soc., 56 (1934), 697

Kofler, L., and Steidl, G.

Occurrence and distribution of saponins in medicinal plants

Arch. Pharm., 272 (1934), 300

Kussner, W.

Ergoclavine, a new specific alkaloid of ergot

Arch. Pharm., 272 (1934), 503

Leger, E.

Determination of morphine in opium by the lime method

Bull. sci. pharmacol., 41 (1934), 65

Leger, E.

Glucosides of Digitalis lanata. A review

J. pharm. chim., 19 (1934), 169

Leonard, C. S., and Arthur, John M.

The reputed influence of ultraviolet light on the yield of digitalis glucosides

Jour. A. Ph. A., 23 (1934), 224

Lillig, R.

Specific rotatory power of alkaloids and alkaloidal solutions

Pharm. Zig., 79 (1934), 198

Mannich, C.

"Offenes" ecgonine and tropine

Arch. Pharm., 272 (1934), 323

Peters, Allen F., and Osol, Arthur

The colorimetric and electrometric pH determinations of solutions of certain alkaloidal salts

Jour. A. Ph. A., 23 (1934), 197

OILS, FATS AND WAXES.

Coe, Mayne R., and LeClerc, J. A.

Photochemical-studies of rancidity. Peroxide values of oils as affected by selective light

Ind. Eng. Chem., 26 (1934), 245

Dieterle, H., and Salomon, A.

Onocerin, the phytosterin in Ononis spinosa L.

Arch. Pharm., 272 (1934), 142

Graham, J. Howard

A contribution to the photochemistry of cod liver oil

Am. J. Pharm., 106 (1934), 44

Haines, R. T. M., and Drummond, J. C.

The grouping of halibut-liver oils

J. Soc. Chem. Ind., 53 (1934), 81T

Horn, David Wilbur, and Wilson, Margaret Alberta

Transition points of mixtures of cow's butter and cacao butter

Am. J. Pharm., 106 (1934), 59

Kariyone, T., and Hasegawa, Y.

Constituents of sapucainha oil

J. Pharm. Soc. Japan, No. 624 (1934), 28

Reber, K.

Differentiation of "Oleum Hyperici" and olive oil colored with alkanet

Pharm. Acta Helv., 9 (1934), 1

Schuster, G.

Contribution to the detection of adulteration of cacao butter

J. pharm. chim., 19 (1934), 206

Wikoff, Helen L., Busey, Maribodine, and Kaplan, A. M.

Analytical constants of peanut butter

Ind. Eng. Chem., 26 (1934), 291

ESSENTIAL OILS.

Bauer, K. H., and Starecke, H. J.

Resin of Manila elemi

Arch. Pharm., 272 (1934), 167

Boehm, Theodor

Studies in the coumarin series, 3

Arch. Pharm., 272 (1934), 406

British Essential Oil Sub-committee
Uniformity of analytical methods. The determination of aldehydes other than citronellal
Perf. & Ess. Oil Rec., 25 (1934), 36
 Ekkert, Lad.
Contribution to the chemical reactions of eucalyptol
Pharm. Zentralh., 75 (1934), 145
 Freise, Fred. W.
Brazilian plants explored for their coumarin
Perf. & Ess. Oil Rec., 25 (1934), 39
 Gaponenkov, T. K.
Essential oil of *Erigeron canadensis*, L.
J. Appl. Chem. Russ., 6 (1933), (1111-1114, 1115-1119); through *J. Soc. Chem. Ind.*, 53 (1934), 252B
 Garnier, R., and Sabetay, S.
Analytical constants of Bulgarian rose oil
Compt. rend., 197 (1933), 1748-1750; through *J. Soc. Chem. Ind.*, 53 (1934), 219B
 Ruemele, Th.
Compilation of analytical data on essential oils
Pharm. Zentralh., 75 (1934), 173
 Seivers, A. F., and Lowman, M. S.
Japanese mint in United States
Perf. & Ess. Oil Rec., 25 (1934), 78

ANALYTICAL METHODS AND RESULTS.

Anon.
Changes in methods of analysis. Calcium gluconate
A. O. A. C., 17 (1934), 75
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 Anon.
Changes in methods of analysis. Papaverine and procaine
A. O. A. C., 17 (1934), 76
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Changes in methods of analysis. Antipyrine, methenamine and triethanolamine
A. O. A. C., 17 (1934), 77
 Anon.
Changes in methods of analysis. Tetrachlorethylene
A. O. A. C., 17 (1934), 78
 Bari, Z.
Evaluation of medicinal charcoals and preparations
Magyar Gyóg. Társ. Ért., 9 (1933), 52-68;
Chem. Zentr., 1 (1933), 1821; through *J. Soc. Chem. Ind.*, 53 (1934), 171B

Budde, Hans
Gravimetric determination of derivatives of barbituric acids
Apoth.-Ztg., 49 (1934), 295
 Bümbling, G., and Kroll, S.
Examination of calcium glycerophosphate
Arch. Pharm., 272 (1934), 297
 DeClercq, A., and Van Hauwaert, Marg.
Determination of the proteolytic activity of pepsin
J. pharm. Belg., 16 (1934), 211
 Gros, Raoul
Determination of acetone
J. pharm. chim., 19 (1934), 214
 Hanson, W. E., Sweetser, S. B., and Feldman, H. B.
The potentiometric determination of arsenates
J. Am. Chem. Soc., 56 (1934), 577
 Houghton, R. E.
Studies in the use of 2,4-dinitrophenylhydrazine as a quantitative reagent for carbonyl compounds; I. Benzaldehyde
Am. J. Pharm., 106 (1934), 62
 Junghans, Günther
New method for the assay of extract of belladonna
Apoth.-Ztg., 49 (1934), 325
 Lewis, S. Judd
Spectroscopy in pharmaceutical research
Chem. & Drug., 120 (1934), 268
 Müller, Aug.
New constants for drugs
Apoth.-Ztg., 49 (1934), 277
 Patzsch, Herbert
Methods for the quantitative determination of animal lipoids and their components
Pharm. Zentralh., 75 (1934), 116
 Wagenaar, M.
Contribution to the microchemical identification of santonin
Pharm. Weekbl., 71 (1934), 260

ORGANIC CHEMICALS.

Busch, M., and Pöhlmann, Fritz
N-aminobarbituric acids
Arch. Pharm., 272 (1934), 190
 Grubb, William John, and Read, John
The preparation of pure d-neomenthol from l-menthol
J. Soc. Chem. Ind., 53 (1934), 52T
 Henriksen, Richard H.
Derivatives of barbituric acid
Pharm. J., 132 (1934), 200

Hoyt, L. F.

New table of the refractive index of pure glycerol at 20° C.

Ind. Eng. Chem., 26 (1934), 329

Kindler, Karl, and Peschke, Wilhelm

New and improved methods for building up pharmacologically active amines. IX. Syn-

thesis of papaverine and tetrahydro-papaverine

Arch. Pharm., 272 (1934), 236

Rosenmund, K. W., and Schaprio, D.

Synthetic investigations in the realm of antelmintics

Arch. Pharm., 272 (1934), 313

COMPARISON OF KARAYA GUM AND TRAGACANTH.*

L. F. GABEL.

Karaya Gum (*Sterculia urens*) was formerly known as Indian Gum. It comes chiefly from India. The use of Karaya Gum in the preparation of toilet articles has increased in recent years. This has been due to the discovery that Karaya possesses certain physical properties that make it superior to Tragacanth for some purposes.

This laboratory has obtained data in regard to the comparative value of mucilages of Karaya and Tragacanth, and as the literature lacks information on this point, considered it worth while to publish the results.

I. KARAYA GUM DIFFERS FROM TRAGACANTH IN PHYSICAL AND CHEMICAL PROPERTIES AS SHOWN IN THE FOLLOWING TABLE.

TABLE I.

	Karaya.	Tragacanth.
Physical form	Lumps	Ribbons
Chief chemical principal	Gelose	Bassorin
Solubility in water	More soluble than Tragacanth	
Reaction	Acid (1 Gm. requires 4.5 cc. N/10 alkali to neutralize)	Acid (1 Gm. requires 0.9 cc. N/10 alkali to neutralize)
Appearance of solution in water	Translucent	Opalescent
50% Alcohol	Clear	Precipitates
Borax test (U. S. P.)	Stringy and slimy	Not affected
Iodine T.S.	Colorless—free from starch	Blue color—starch present
Density	1.20	1.25

II. MUCILAGE OF KARAYA GUM COMPARED WITH MUCILAGE OF TRAGACANTH.

Mucilages of the gums were prepared according to the following formula:

Powdered gum	42 grains
Glycerin (used as preservative)	5 oz. av.
Sufficient water to make	8 oz. av.

Tests were applied to the mucilages to note:

- 1st Ability of the gum to form thick mucilage.
- 2nd Effect of aging on the mucilage.
- 3rd Differences in viscosity due to the method of manufacture, *i. e.*, 1st set of experiments prepared with heat, 2nd set prepared by heating to boiling, 3rd set prepared by boiling two minutes, 4th set prepared by boiling five minutes, 5th set prepared by boiling ten minutes.

* Section on Practical Pharmacy and Dispensing, A. PH. A., Madison meeting, 1933.