

Name.	Formula.	Melting point. °C.
<i>o</i> -Chloroacetylaminophenol . . . . .	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub> NCl	138-40
<i>o</i> -Chloroacetylaminophenyl acetate . . . . .	C <sub>10</sub> H <sub>10</sub> O <sub>3</sub> NCl	113.5-4.5
2-Methyl-5-chloroacetylaminophenol . . . . .	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub> NCl	154-5
4-Methyl-5-chloroacetylaminophenol . . . . .	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub> NCl	151-2.5
1-Chloroacetyl-amino-2-naphthol . . . . .	C <sub>12</sub> H <sub>10</sub> O <sub>2</sub> NCl	192-3
1-Chloroacetyl-amino-4-naphthol . . . . .	C <sub>12</sub> H <sub>10</sub> O <sub>2</sub> NCl	199.5-201.5
2,4-Dichloro-5-acetaminophenol . . . . .	C <sub>8</sub> H <sub>7</sub> O <sub>2</sub> NCl <sub>2</sub>	233-6
2,4-Dichloro-5-aminophenol . . . . .	C <sub>6</sub> H <sub>5</sub> ONCl <sub>2</sub>	135-6
2,4-Dichloro-5-chloroacetylaminophenol . . . . .	C <sub>8</sub> H <sub>6</sub> O <sub>2</sub> NCl <sub>3</sub>	185.5-6.5
2,4-Dichloro-5-acetaminoanisol . . . . .	C <sub>9</sub> H <sub>9</sub> O <sub>2</sub> NCl <sub>2</sub>	157.5-9.0
2,4-Dichloro-5-anisidine . . . . .	C <sub>7</sub> H <sub>7</sub> ONCl <sub>2</sub>	50.5-1.5
2,4-Dichlororesorcin dimethyl ether . . . . .	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub> Cl <sub>2</sub>	117-8
2,4,6-Trichloro-5-acetaminophenol . . . . .	C <sub>8</sub> H <sub>6</sub> O <sub>2</sub> NCl <sub>3</sub>	185.5-6.5
2,4,6-Trichloro-5-aminophenol . . . . .	C <sub>6</sub> H <sub>4</sub> ONCl <sub>3</sub>	95-6
2-Bromo-5-aminophenol . . . . .	C <sub>6</sub> H <sub>6</sub> ONBr	
2-Bromo-5-chloroacetylaminophenol . . . . .	C <sub>8</sub> H <sub>7</sub> O <sub>2</sub> NClBr	191-3
<i>m</i> -Acetaminophenoxyacetic acid . . . . .	C <sub>10</sub> H <sub>11</sub> O <sub>4</sub> N	170.5-2.5
<i>m</i> -Aminophenoxyacetic acid . . . . .	C <sub>8</sub> H <sub>9</sub> O <sub>3</sub> N	
<i>m</i> -Chloroacetylaminophenoxyacetic acid . . . . .	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub> NCl	159-62
<i>p</i> -Sulfofenylazoguaiacol . . . . .	C <sub>13</sub> H <sub>12</sub> O <sub>6</sub> N <sub>2</sub> S	
4-Aminoguaiacol . . . . .	C <sub>7</sub> H <sub>9</sub> O <sub>2</sub> N	177-8
4-Aminopyrocatechol hydrobromide . . . . .	C <sub>6</sub> H <sub>7</sub> O <sub>2</sub> N.HBr	255-60
4-Aminopyrocatechol . . . . .	C <sub>6</sub> H <sub>7</sub> O <sub>2</sub> N	124-5
4-Chloroacetylaminopyrocatechol . . . . .	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub> NCl	156-7.5
<i>p</i> -Chloroacetyl-aminoacetophenone . . . . .	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub> NCl	152-3
<i>p</i> -Chloroacetylaminophenylacetic acid . . . . .	C <sub>10</sub> H <sub>10</sub> O <sub>3</sub> NCl	158-60
Ethyl chloroacetyl-anthranilate . . . . .	C <sub>11</sub> H <sub>12</sub> O <sub>3</sub> NCl	79.5-80
Ethyl iodoacetyl-anthranilate . . . . .	C <sub>11</sub> H <sub>12</sub> O <sub>3</sub> NI	78.5-9.0
Chloroacetyl- <i>N</i> -methylanthranilic acid . . . . .	C <sub>10</sub> H <sub>10</sub> O <sub>3</sub> NCl	167-8
Ethyl chloroacetyl-methylanthranilate . . . . .	C <sub>12</sub> H <sub>14</sub> O <sub>3</sub> NCl	50-1
Sodium chloroacetylsulfanilate . . . . .	C <sub>8</sub> H <sub>7</sub> O <sub>4</sub> NCISNa	
4-Chloroacetyl-amino-6-hydroxybenzenesulfonic acid . . . . .	C <sub>8</sub> H <sub>8</sub> O <sub>6</sub> NCIS	
Sodium 4-chloroacetyl-amino-6-hydroxybenzenesulfonate . . . . .	C <sub>8</sub> H <sub>7</sub> O <sub>6</sub> NCISNa	
Chloroacetmethylamide . . . . .	C <sub>5</sub> H <sub>8</sub> ONCl	b <sub>22</sub> 112-3
Chloroacet- <i>n</i> -propylamide . . . . .	C <sub>6</sub> H <sub>10</sub> ONCl	b <sub>10-5</sub> 105-6
Hexamethylenetetramonium salt . . . . .	C <sub>11</sub> H <sub>22</sub> ON <sub>5</sub> Cl	147-9
Chloroacetylethylurea . . . . .	C <sub>6</sub> H <sub>9</sub> O <sub>2</sub> N <sub>2</sub> Cl	141.5-2.5
Chloroacetyl-piperidine . . . . .	C <sub>7</sub> H <sub>12</sub> ONCl	b <sub>17</sub> 151

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### NEW BOOKS.

**Chemical French.** By MAURICE L. DOLT. 23 × 16 cm.; pp. VIII + 398. Easton: The Chemical Publishing Company, 1918. Price, \$3.00.

This volume plans to do for the student of French what Phillips' book does for the student of German. Since French is an easier language to pick up than German, the author's task is somewhat less difficult than the one that Phillips set himself. The first four chapters deal with: articles; adjectives and pronouns; verbs, participles, adverbs, pronoun objects;

and tenses. There are also special chapters on: oxygen and hydrogen; carbon, carbon monoxide, and carbon dioxide; definite and multiple proportions; ammonia and the oxides of nitrogen; phosphorus; sulphur; chlorine; oxides and salts; the important metals; qualitative analysis; quantitative analysis; analytical chemistry; organic chemistry; alcohols and acids; gas laws; molecular weight determinations; electrolysis; and technical apparatus. Each chapter or exercise has its own vocabulary.

The second part of the book is entitled selections for advanced reading and contains articles by Job, Moissan, Berthelot, Gautier, Grignard, Friedel and Crafts, Sabatier and Senderens, Effront, Raoult, Pasteur, Becquerel, and Mme. Curie.

The author has included a table of irregular verbs and a general vocabulary. The whole thing is done very well and the selected articles make interesting reading even for those who are not beginners. There are a good many misprints but that probably cannot be helped in a book published in a foreign language.

WILDER D. BANCROFT.

**Hindu Achievements in Exact Science.** A Study in the History of Scientific Developments. By **BENOY KUMAR SARKAR**. 82 pp. Longmans, Green and Co., 1918. Cloth, \$1.00.

The spirit of nationalism is a very potent force in the world today. To it, under the name of patriotism, we owe an infinity of brave and noble deeds during the past four years. This small book is also a product of the same spirit; it is an attempt to show within a narrow compass the remarkable scientific and intellectual achievements of the Indian peoples up to about 1700 A. D.

There are chapters on the branches of mathematics from arithmetic to the calculus; on physics, astronomy, chemistry, metallurgy, medicine, natural history, etc. Westerners or Eur-Americans as we are called, can't but be surprised and impressed by the very many important discoveries in which India anticipated Europe by centuries. As a chemist, I was particularly impressed by the record of their achievements in mathematics and astronomy. To have computed  $\pi$  in 500 A. D. accurately to four places of decimals (this was not done in Europe until 1450 A. D.), seems more remarkable than to have anticipated Paracelsus by 200 years in the recognition of zinc as a distinct metal.

One main thesis of the book is that Indian and European culture and attainments are not fundamentally so very different after all, at least if we neglect the last 100 years. "There was hardly any difference between Europe and Asia at the time of the French Revolution (1789). The real and only cause of the parting of ways between the East and the West, nay, between the medieval and the modern, was the discovery of steam, or rather its application to production and transportation. The steam engine effected an industrial revolution during the first three

decades of the nineteenth century. It is this revolution which has ushered in the 'modernism' of the modern world in social institutions, science, and philosophy, as well as brought about the supremacy of Eur-America over Asia" (p. 7). Perhaps we *are* too much inclined to think of Indians only as introspective dreamers, theosophists, and tireless grammarians. It seems that "India was the great industrial power of antiquity. To the Romans of the Imperial epoch, and the Europeans of the Middle Ages, also, the Hindus were noted chiefly as a nation of industrial experts."

The book suffers from the very spirit of nationalism which prompted it. Apparently every claim ever made for Hindu priority in science has been recorded, and many of these claims are not at all convincing. The author hardly gives China any credit, and Egypt is not mentioned at all. The Saracens, it seems, were only jobbers in intellectual goods of Hindu origin, purveyed under an Arabian trade-mark. In other words, the book is not at all critical or judicial, and so is not as convincing as it might have been. Nevertheless, this record of achievements is so formidable that the reader cannot help but be impressed with the power, originality and subtlety of the Hindu mind.

ARTHUR B. LAMB.

*Edible Oils and Fats.* By C. A. MITCHELL. (Monographs on Industrial Chemistry edited by Sir Edwin Thorpe.) Pp. xii + 159. London: Longmans, Green & Co., 1918. Price, \$2.00.

This book is cordially recommended to all interested in obtaining a good general idea of fat and oil chemistry and its application. The subject is treated more from the standpoint of the analyst than the manufacturer.

The fundamental chemistry of the glycerides is presented in a clear and compact manner, as well as the standard analytical methods with tables of analytical constants of the better known fats and oils.

The book contains cuts of some of the machinery used in manufacturing processes but little information is given regarding the manufacturing problems involved and the details needed for securing practical results.

The chapters on Margarine and Fat Hardening give the reader good bird's-eye views of those subjects.

The final chapter of 33 pages of bibliography adds greatly to the value of the work as a book of reference.

While particularly useful to those beginning the study of fats and oils, it is recommended to all those who have anything to do with the subject,

DAVID WESSON.