Vegetable oil	A. V.	micrograms of copper per 1cm² of paint surface in 7days	
		in water	in 3% NaCl solution
higher A. V. rice oil	102	0.9	0.9
distillation residue of rice oil	41	2.7	1.9
soya bean oil	3.3	8.8	6.5
linseed oil	4.1	6.8	9.4
lower A. V. rice oil	2.6	12.1	12.8

2) Influence of Added Materials upon the Solubility of Copper.

Rosin, 20% ; Higher A. V. Rice Oil, 20% ; Turpentine Oil, 20% ; Cu_2O, 35% ; One of 9 Kinds of Added Materials, 5%.

Addde material	micrograms of copper per 1cm² of paint surface in 7days	
	in water	in 3% NaCl solution
Cu_2O	0.9	0.9
$CaCO_3$	0.9	0.9
ZnO	0.9	2.5
Cu-Soap	1.2	3.5
HgO	3.9	4.4
Fe_2O_3	5.2	4.2
$BaSO_4$	4.5	4.6
$CaSO_4$	4.8	4.1
CuO	5.9	4.2

According to the above results, the higher the acid value of the oil in vehichle is, thg less the dissolved copper is. And the solubility of copper varies in wide range by adding other materials.

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31. A Knowlege on the Bart Reaction.

Risaburo Nakai and *Yutaka Yamakawa.*

The general method for the preparation of aromatic arsonic acids is the Bart reaction, which involves the inter action of a diazonium salt with an alkali arsenite. In the course of the survey of several aromatic diarsonic acids, it has been found that the effect of substituent groups on yield was significant.

Hydroxy groups. The conversion of o-and p-aminophenol to the corresponding hydroxyphenylarsonic acid takes place with the yield of 65% and 61% respectively, while the reaction fails with m-isomer.

Nitro groups. p-Nitroaniline is converted into p-nitrophenylarsonic acid with satisfactory yield of 62% and m-nitroaniline gives somewhat less yield (28%).

Arsono groups. p-and m-Aminophenylarsonic acid results in the formation of the corresponding phenylenediarsonic acid with less yield of 24% and 13% respectively.

As the case of variously substituted 2-amino-4-hydroxyphenylarsonic acid and 3-nitro-4-aminophenylarsonic acid are converted to the corresponding phenylenediarsonic acids with the yield of 34% and 66%.

It is therefore, conceivable that hydroxyl and nitro groups in the para or ortho position to diazo group facilitate the Bart reaction, while these in the meta position impede the reaction.

Furthermore it seems to illustrate that the strong beneficial influence of o-nitro or hydroxyl group overcome the hampering effect of m-arsono group.

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32. Study on the Aromatic Stibonic Acid. (IV)

Risaburo Nakai, Hajime Tomono and *Tatsuo Azuma.*

Primary aromatic amines can be converted into the corresponding stibonic acids by the Bart reaction or its modification, which involves the interaction of a diazonium salt with a freshly prepared sodium antimonite and alkali.

The preparation of phenyl stibonic acids attained to the yield of 35-40%. For the study of the effect of acetamino group on yield, three isomers of acetamino aniline were prepared. The reaction with the p-acetamino aniline, obtained by the reduction of p-nitroacetanilid, resulted in the formation of the corresponding p-acetaminophenylstibonic acid with the yield of 26%, while the monoacetyl compound derived from p-phenylenediamine by acetylation to no effect. The o-, and m-compounds synthesized by the reduction of nitroacetanilid was converted into the corresponding stibonic acids in the yield of 13% and 8% respectively. A comparison of the yield denotes that an acetamino group impedes the stibonation by the Bart reaction and the hampering effect increases in the order of p, o, and m position to the diazo group.

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33. The Behaviors of Acyl-DL-Lysine for Enzyme Action.

Senji Utzino and *Toshio Yoneya.*

Only α-chloroacetyl derivative was hydrolyzed from α-formyl, α-acetyl, α-chloroacetyl, and α-benzoyl derivatives of ε-benzoyl-DL-lysine at pH 7 by crude aqueous extract of hog kidney. The rate of hydrolysis was very slow in comparison with that of monoaminomonocarboxylic acids and amounted to 50% of the theory after 45 hours. The substrates were not attacked at all by the beef pancreas enzyme.