

bromine determination was made after the method of Carius to see if some similar body had not been found in this case. A confirmatory determination would have been made but unfortunately part of the liquid was lost.

0.1895 grm. substance gave 0.2019 grm. silver bromide.

Calculated for $C_7H_{13}Br$, 45.19 per cent. Br—found 45.34 per cent. Probably the first small fraction coming over somewhat under 100° consisted of C_7H_{12} but the quantity was too small for examination and purification. The reaction then, instead of following the formula, $C_7H_{14}Br_2 + 2KOH = C_7H_{12} + KBr + 2H_2O$ was rather $C_7H_{14}Br_2 + KOH = C_7H_{13}Br + KBr + H_2O$ in spite of the excess of alcoholic potash.

Bromheptylene— $C_7H_{13}Br$ is a colorless mobile liquid, with a pleasant though pungent aromatic odor, lighter than water and boiling at 156° – $158^\circ C$. The two bodies $C_7H_{13}Br$, and C_7H_{12} , prepared by Bruylaut had respectively the boiling points $165^\circ C$ and $100^\circ C$. This gives a difference of 7° – 9° in boiling points between the derivation from the *œnanthal* heptane and the *Pinus Sabiniana* heptane. Nearly the same difference is noticed between the heptylic bromides $C_7H_{13}Br$ from *œnanthal* boiling at 178.5° and from *P. Sabiniana* boiling at 165.5° .

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NOTES FROM THE CHEMICAL LABORATORY OF THE
UNIVERSITY OF NORTH CAROLINA—ANALYSIS OF
ROCK-SALT FROM SALTVILLE, WASHINGTON CO.,
VA.

BY THOMAS RADCLIFFE.

A specimen of this rock-salt sent by the superintendent of the salt-works in the valley of the Holston, yielded on analysis somewhat different results from the previously published analysis (*Chem News* No. 1038) and in view of this and the claim made for this Virginia brine, that it exceeds in purity nearly all others of which analyses are on record, the analysis made in this laboratory is published. The specimen was brownish-red in color, with a crystalline structure and was obtained whilst deepening one of the salt-wells. This rock-salt is not mined, the brine alone being used for the manufacture of salt. The capacity of the works is at present 450,000

bushels per year, though at one time, during the late war, the yield was as high as 10,000 bushels per day.

According to this analysis the rock-salt contained:

Na Cl.....	93.05
K Cl.....	trace
CaSO ₄ .2H ₂ O.....	2.40
MgSO ₄07
Fe ₂ O ₃83
SiO ₂	2.81
H ₂ O.....	.30
	99.46

An analysis of the salt as marketed gave 98.89 per cent. NaCl with a small percentage of CaSO₄.2H₂O and a trace of MgSO₄, showing it to be a high-grade salt.

ANALYSIS OF A DEPOSIT OF ZINC OXIDE IN A BLAST FURNACE AT LONGDALE, VA.

BY THOMAS RADCLIFFE.

As is well-known these deposits of impure zinc oxide are some times found in furnaces where zinc-bearing ores are used. The name cadmia is given them in Dana's mineralogy. The green flame of burning zinc is noticed at the tyrup of these furnaces and was formerly looked upon by furnace-men as indieative of sulphur—especially as this burning left on substances in the near neighborhood of the tyrup a coating of zinc oxide which was yellow whilst hot. The specimen examined was sent through the courtesy of the manager of the Longdale Iron Co's. furnaces. According to analysis no zinc is contained in the ores used by this company, the said ores being ordinary brown hematite. Nor has zinc been found in the coke and limestone used—evidently occurring then in minute traces probably in the ore. The deposit was very large, nearly choking the mouth of the furnace. The specimen had a laminated appearance, as if deposited in layers, and was greenish-brown in color. It was quite hard, breaking in thin plates, like shale, in the