subjected to Group II plasma, indicates the presence of some factors in onion extract which help for retaining the normal shape of erythrocytes. To observe the effect of Group III plasma on Group II erythrocytes, these were mixed and incubated by similar method as mentioned above. Crenation of the cells disappears and they closely resemble normal control cells, as shown in Fig. 5.

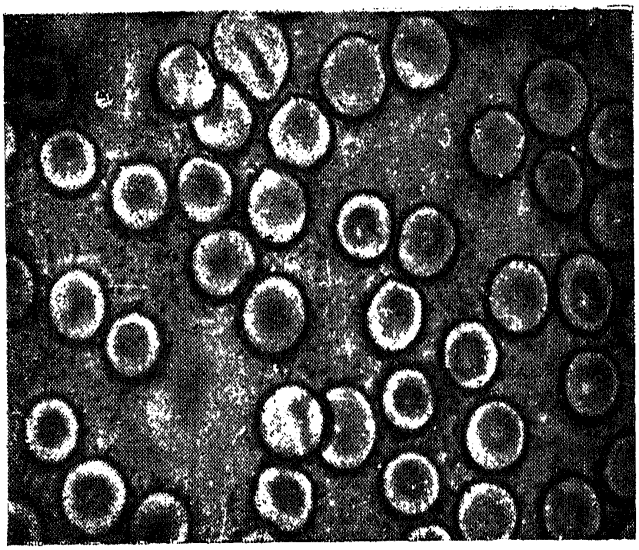

FIG. 5. Erythrocytes of Group II, after incubation with plasma of Group III, show the recovery from crenation and appear similar to normal control cells.

Recovery of the cells from crenation indicates the presence of some factors in Group III plasma which counterbalances the cholesterol effect and this plasma behaves similar to the normal control plasma.

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4-DIMETHYLAMINO PYRIDINE-1-OXIDE COMPLEXES OF LANTHANIDE PERCHLORATES

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ABSTRACT

Adducts of Lanthanide Perchlorates with 4-dimethyl amino pyridine-1-oxide (DMPO) have been synthesized for the first time and characterized by analysis, electrolytic conductance, infrared, proton NMR and electronic spectral data. The complexes have the compositions $Ln_2(DMPO)_{12}(ClO_4)_6$ (Ln = La, Pr, Nd and Sm) and $Ln(DMPO)_6(ClO_4)_3$ (Ln = Gd, Tb, Dy, Ho and Yb). A tentative coordination number of seven for the complexes of the type $Ln_2(DMPO)_{12}(ClO_4)_6$ and of six for the type $Ln(DMPO)_6(ClO_4)_3$ have been assigned.

2 INTRODUCTION

THE study of the coordination compounds of a variety of lanthanide salts, with pyridine-N-oxide (PyO) and methyl substituted pyridine-N-oxides has shown that the substitution of the methyl group at 3 and 4 positions of the PyO moiety has no influence on the coordination number around the lanthanide ions[1–3]. We have now initiated a systematic programme involving adducts of lanthanide salts with pyridine-1-oxides having substituents other than the methyl group. We report in this paper the preparation and characterization of the complexes of lanthanide perchlorates with 4-dimethylamino pridine-1-oxide with an attempt to compare the complexes with those of 4-MePyO[3], 4-chloro PyO and 4-nitro PyO[4]. The complexes have been characterized by analysis, conductance, IR, NMR and electronic spectra.

2. EXPERIMENTAL

2.1. *Preparation of the Ligand*

4-Nitro pyridine-1-oxide was prepared by nitration of pyridine-1-oxide as described by Katritzky[5]. 4-Chloropyridine-1-oxide was obtained by the reaction of 4-nitropyridine-1-oxide with acetyl chloride according to the method given by Ochiai[6]. 4-Dimethylamino-pyridine-1-oxide was now prepared by reacting