STUDIE ON PRODUCTION OF RECOMBINED BUTTER

BY

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A. thesis Submitted in Partial fulfillment

of

the requirement for the degree of

MASTER OF SCIENCE

in

Agriculture

(Dairy Science and Technology)

Department Of Food Science

Faculty of Agriculture

Ain Shams University

1992

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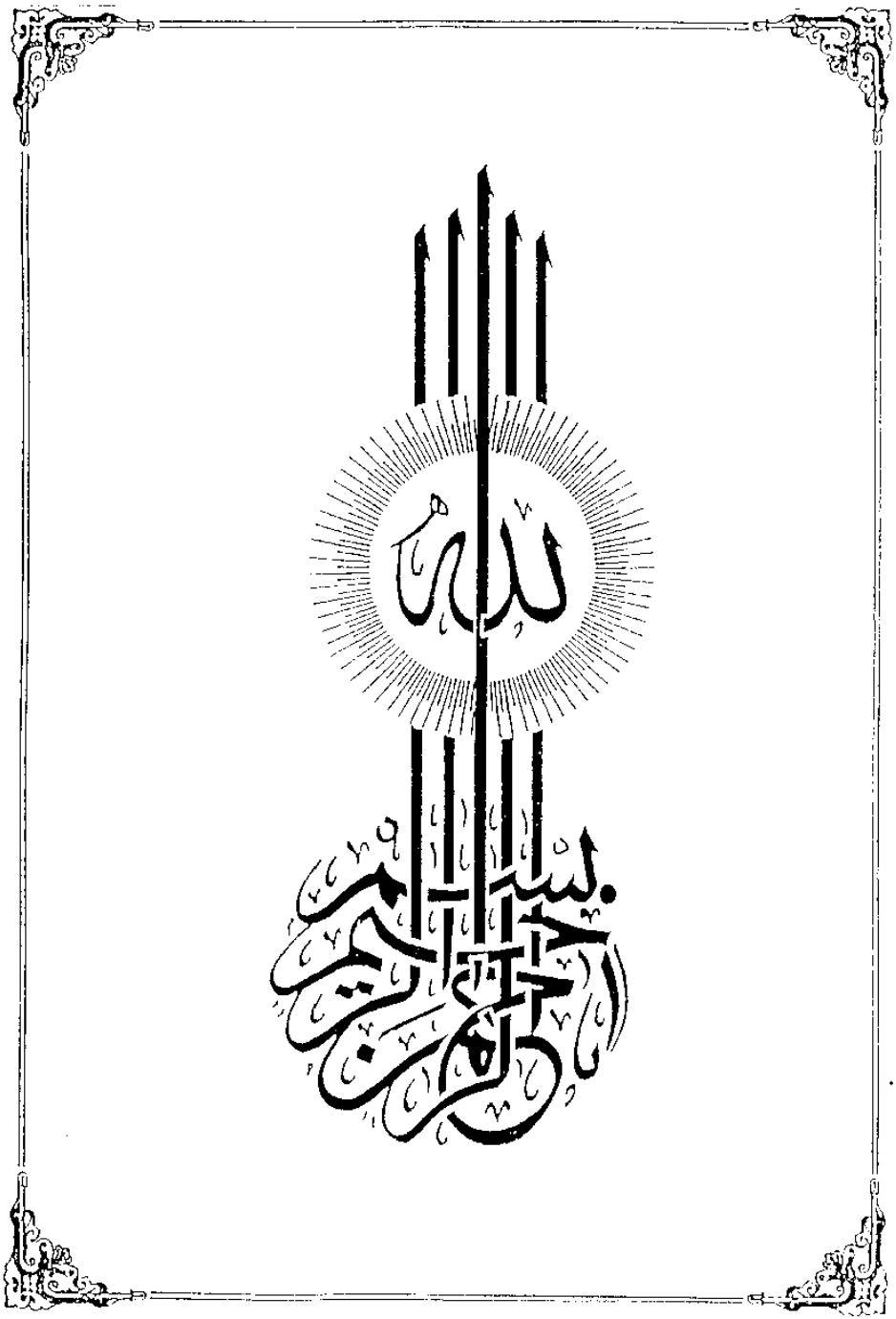

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ABSTRACT

Imported skimmilk powder (SMP) and butter oil (B.O) samples were randomily collected from the local market at Cairo. While, samna was laboratory made and aged at the room temperature for the same age of B.O. These materials were analysed for chemical composition and keeping quality. Both lipids were separetly exposed for recombining butter composing of 80% fat, 2% SMP,1.5% salt,0.5%stabilizer & emulsifier and 16% water. The resultant butters were analysed whether fresh or during storage at 5°C for 4 week, for chemical, rheological organoleptical and keeping quality properties.

The variances in SMP sources resulted in significant differences in lactose and soluble nitrogen (SN)contents. Likewise whey protein index and protein reducing value (PRV) were also influenced. However, the reconstituion (protein stability, wetability and solubility) and organoleptic properties were not affected. Samna was varied from butter oil in the contents of fat, free fatty acid and moisture. The lipid aging led to significant changes in the refractive index of (B.O) associated with peroxide value (PV)and thiobarbituric acid(TBA)value of samna. Flavour scores of both lipids were significantly lowered by storage.

The recombination process improved the quality of the product either by lowering the PV, TBA, Free fatty

acid (FFa) content and acid value or by increasing the refractive index (RI). The reduction in both PV and TBA was strongly correlated to the SN and PRV of SMP used. Some equations were suggested.

The initial PV, TBA and FFa content of starting lipids influenced significantly those of resultant butter and most its rheological & organoleptical properties. Besides the cold storage of butter increased significantly its PV, TBA, FFa, acid value, total carbonyl compounds (T.C.C) and titratable acidity (as lactic acid), while RI and the flavour score of butter decreased.

Generally samna-recombined butter was varied from that of B.O in PV, FFa content, acid value, titrable acidity and total carbonyl compounds. Likewise, there were significant differences in the yield value and the consistency score between both butters.

T O

M Y

P A R E N T S

ACKNOWLEDGEMENT

The auther wishes to express her sincere gratitude to Prof. Dr. G.A. MAHRAN, Professor of Dairying and Head of Food Sci. Dept., Ain Shams University; Prof. Dr. NAWAL S. AHMED, Professor of Dairying, National Research Centre (NRC) and Dr. A.E. FAYED, Associate Professor of Dairying at the first Department for their continuous valuable help and guidance through their supervision they kindly offered.

Sincere appreciation are also due to Dr.M.Y.SAADA, Associate Professor of Dairying at NRC for his keen interest and valuable advice.

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