CURRICULUM VITAE

D. LADIKOS (B.Sc. Chem., M.Sc., Ph.D.)



EDUCATION

1976-1981: B.Sc. Chemistry, University of Thessaloniki "7.08/10.00"

1981-1982: M.Sc. in Food Science with DISTINCTION, Procter Dept. Food Science Leeds University, UK.

- Scholarship Schilizzi Foundation
- Scholarship "ONASSIS FOUNDATION"
- "DALGETY SPILLERS LTD" prize for best performance
- Dissertation: "Quantitative estimation of Nitrosylhaemochromes in Meat Products".

1983-1986: Ph.D. in Food Science, Procter Dept. Food Science Leeds University, UK.

- Study exceptionally granted by Leeds University
- Subject: "Dissociation of Haemoproteins on Solvent Precipitation".

SCIENTIFIC SOCIETIES – NATIONAL AND EUROPEAN UNION COMMITTEES

- Member R.S.C. (Royal Society Chemistry, ENGLAND)
- Professional member IFT (Institute Food Technology, U.S.A.)
- Member EEX (Hellenic Society Chemistry) Division Food Science & Technology (Member of the Board, 1990-1992, 1992-1994, 1994-1996, 1996-1998).
- Working group Greek Federation Food Industries S.E.V.T. (October 1990-October 1998)
- Delegate for Greek Federation Food Industries in C.I.A.A./Brussels (October 1990-.....).
- Delegate for Greek Federation Food Industries in CEN/CENELEC on Food certification (May 1991-1998).
- Delegate for Greek Federation Food Industries in ELOT (Hellenic organisation for quality certification) / Top management Committee for HACCP certification (2001)
- Independent expert (evaluator) appointed by EEC for scientific program AAIR 1991-1994 (Brussels, 22/2/92).
- Expert appointed by Greek Federation Food Industries for research and investment programs by General Secretariat of Research & Technology (1993, 1995,2001).
- Member Supreme Chemical Council (Supreme state legislative body on Greek Food Legislation (February 1991-1996).
- Member of the board of Directors of ETAT S.A. (Food Development Company which belongs to the General Secretariat of Research and Technology) (1994-1998).
- Independent expert (evaluator) appointed by EU for scientific program CRAFT 2004 / AND FOOD SAFETY / FP6 2004 /CRAFT 2005/ FP7 CAPACITIES/ HORIZON 2020.
- Evaluator Investment funding for General Secretariat of Research and Technology N3299/04
- Member of scientific committee for Greek Federation Food Industries since 1999
- Member of the Board for ETP.

PROFESSIONAL & TEACHING EXPERIENCE

<u>I. TEACHING</u>

- 1983-1986: The University of Leeds, Dept. Food Science laboratory tutor in the Food Analysis Practical Sessions for the B.Sc. and M.Sc. courses in Food Science.
- 1987-1988: Lecturer in Food Science by the Administration for Naval Education (DNE/PALASKAS camp) for two successive academic periods.
- 1993-1995: Lecture in Food Science M.Sc. joint course T.E.I. Athens Humberside Polytechnic.

II. PROFESSIONAL

- 1987-1989: Chemistry Department of the Greek Naval Force in Salamis, chemist in the Department of Organic Materials (quality control of organic materials supplies).
- 1987-1989: Shelf-owned consultancy firm dealing with food manufacturers problems (Food Analysis Lab, 10-12 Aristidou St., Athens 105 59), concerning development of new products and preparation, preservation, hygiene and storage procedures of various foodstuffs.
- 1989-2003: Yiotis S.A. Nourishing Products Industry, as Head of Product Development
 - Development of new products and new production lines
 - Supervision of chemical, microbiological, instrumental and product development laboratories,
 - Supervision of all company's investment plans and research projects.
- 1991-1996: Member Supreme Chemical Council (Supreme state FOOD legislative body
- 1994-1998: Member of the board of Directors of ETAT S.A. (General Secretariat of Research and Technology MINISTRY OF DEVELOPMENT)
- 2003-2007: Yiotis S.A. Nourishing Products Industry, as Quality Assurance Director and New Business development, <u>Member of the Board</u>
 - Development of new products and new production lines & supervision of quality assurance
 - Technical representation for the company
 - Supervision of chemical, microbiological, instrumental and product development laboratories,
 - Supervision of all company's investment plans and research projects.
 - Coordination of all actions concerning product development and market testing up to point of entry into the market
 - Member of senior management staff, with authority to sign for the company
- 2007-2008: Yiotis S.A. Nourishing Products Industry (Athens plant), as Plant Director supervising plant production operations, quality, purchasing and new product development, <u>Member of the board</u>
- 2008 now: Plant Director of YIOTIS S.A. group (4 facilities in total; 2 in Athens (YIOTIS plant and YIOTIS Research Center (HRIC), 1 in Agrinio (plant) and 1 in Bulgaria (plant)) supervising plant production operations, quality, purchasing and new product development, <u>Member of the board</u>

• 2017- now: Owner of the SME GRECOTASK Idiotiki Kefalaiouchiki Etaireia.

REFERENCES

- Professor D.S. Robinson Honorary Head of the Dept. Food Science & Technology Leeds University, LS2 9JT, UK.
- 2. Professor B.L. Wedzicha Head of Dept. Food Science & Technology Leeds University, LS2 9JT, UK.
- 3. Chief Commodore P. Vardakastanis (Chemist) Chemistry Dept. Greek Navy Salamis Naval Station, Athens - Greece
- Professor A. Trichopoulou School of Hygiene 196, Alexandras Ave., Athens - Greece.

ANNEX 1: SCIENTIFIC PUBLICATIONS

- 1. M. Sc. Thesis: Determination of nitrosylhaemochromes in meat products, Leeds University (1982).
- 2. Ph.D. Thesis: Dissociation of Haemoproteins on solvent precipitation, Leeds University (1986).
- 3. Acetone extraction of haem from haemoglobin in the presence of acetate, citrate and phosphate buffers. Food Chemistry, 17, (1985), 199-207.
- 4. Mechanism of acetone extraction of haem from myoglobin in phosphate buffer. Food Chemistry, 19, (1986), 117-128.
- 5. Kinetics of processes involved in the precipitation of myoglobin with acetone in the presence of phosphate buffer. Food Chemistry, 27, (1988), 47-60.
- 6. The structure and stability of the haem-protein complex in relation to meat. Food Chemistry, 29, (1988), 143-155.
- 7. "Notes in Food Science", ed. D. Ladikos, Chemistry Department of the Greek Navy, September 1987.
- 8. Lipid oxidation in muscle foods. Food Chemistry 35, (1990), 295-314.
- 9. Role of the Chemist in Food Industry, Chimika Chronica, July-August 1991, 208-214.
- 10. Total quality in Food Industry. Symposium on Food Quality, 1718/10/1991, Technological Educational Institute, Food Technology Department, Athens.

ANNEX 2: PATENTS

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
1	OBI	1002171	"GALACTOBURECO"	Confectionery product ("Galactobureco" - Custard Filled Pastry) produced on an industrial scale, in a semi-finished form. Product's life cycle equal to 6 months at ambient temperature.	27/1/1995
2	OBI	102170	"BUGATSA"	"BUGATSA"-Cream Puff produced on an industrial scale, in a semi-finished form, ready in 15 min without any need to be baked in the oven by the final consumer.	14/2/1995
3	OBI	1002434	"CHOCOLATE ON STICK"	Chocolate on a stick having the shape of a childhood hero and the form of a human	28/9/1995
4	OBI	6000402	6-side packaging	6-side packaging	23/12/1998
5	OBI	1004361	Bread Chips	Method and Lay-out for the production of a crispy baked snack from a pastry sheet having an expanded, with an empty cavity, round and longitudinal shape, at various flavors, salty or sweet.	9/3/2001
6	OBI	1004608	TEA INSTANT BEVERAGE	Production of Instant Beverage using as a base the biologically active water solvent extraction originating from mountain tea. More specifically the species used is SIDERITIS EUBOEA	6/10/2003
7	OBI	1004609	MOUNTAIN TEA	Production of a product using as a base the biologically active water solvent extraction originating from mountain tea. More specifically the species used is SIDERITIS FUROFA	6/10/2003

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
8	OBI	1005048	CRISPY BASE FOR CAKES	CRISPY BASE FOR CAKESBase for Pastry Cakes composed of a mixture of praline and chocolate as bonding material, enriched with baked waffle pieces	
9	OBI	10005060	CAKES WITH CRISPY BASE	Semi-Finished Cake in a variety of flavours with a new Crisp Base	11/10/2004
10	OBI	1004989	CREAM SUBSITUTE Substitute of sour cream with vegetable fat which is used for cooking, in the same way as cream		16/9/2005
11	OBI	10005197	Corn Flour	Instant Corn Flour Mixture which is used in cooking applications like corn flour	14/4/2006
12	OBI	1007045	S&B Crème Patisserie Water Addition	Mixture in powder form for the preparation of a final product Crème Patisserie with sweeteners, with no added sugars, with low GI, and with fibres. Preparation method accomplished with the addition of water	8/11/2010
13	OBI	1007047	S&B Chilled Dessert	Milk dessert with sweeteners, with low GI and with fibres	8/11/2010
14	OBI	1007046	S&B CrèmeMixture in powder form for the preparation of a final product Crème Patisserie Addition of MilkOf Milkwith fibres. The final product's preparation involves the addition of milk with 0 % fat content		8/11/2010
15	OBI	1007052	S&B Crème Caramel Addition of Milk	milk with 0 % fat contentMixtureforproductionofCrèmeCaramel with sweeteners,Addition of Milkwithfibres.Preparationmethodaccomplishedwith the addition of milk	

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
16	OBI	1007053	S&B Crème Caramel Water Addition	Mixture for the production of Crème Caramel with sweeteners, with no added sugars, with low GI, and with fibres. Preparation method accomplished with the addition of water	10/11/2010
17	OBI	1007057	S&B Millefeuille Water Addition	Mixture for the production of a final product, millefeuille, with no added sugars, with low GI, and with fibres. Preparation method accomplished with the addition of water	10/11/2010
18	OBI	1007056	S&B Millefeuille Addition of Milk	Mixture for the production of a final product, millefeuille, with sweeteners, with low GI, and with fibres. Preparation method accomplished with the addition of milk with 0 % fat content	10/11/2010
19	OBI	1007058	S&B Cake Water Addition	Mixture for the production of a final product, cake with sweeteners, with no added sugar, with low GI, and with fibres. Preparation method accomplished with the addition of water	10/11/2010
20	OBI	1007055	S&B Cake Addition of Milk	Mixture for the production of a final product, cake with sweeteners, with low GI, and with fibres. Preparation method accomplished with the addition of milk with 0 % fat content.	10/11/2010
21	OBI	1007750	Soft Serve Ice Cream Chocolate	Mixture for the preparation of home made soft served ice cream with chocolate flavour	6/6/2011
22	OBI	1007753	Soft Serve Ice Cream Kaimaki Flavor	Mixture for the preparation of home made soft served ice cream with kaimaki flavour	6/6/2011

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
23	OBI	1007765	Soft Serve Ice Cream Vanilla	Mixture for the preparation of home made soft served ice cream with vanilla flavour	6/6/2011
24	OBI	100777	Soft Serve Ice Cream Parfe	Mixture for the preparation of home made soft served ice cream with parfe flavour	6/6/2011
25	OBI	1007432	S&B Syrup	Syrup with chocolate flavour, with no added sugars, with low GI, and with fibres.	12/10/2011
26	OBI	1007438	S&B Cheesecake Water Addition	Mixture for the production of cheesecake with sweeteners, with no added sugars, with low GI, and with fibres. Preparation method accomplished with the addition of water	17/10/2011
27	OBI	1007435	S&B Cheesecake Addition of milk	Mixture for the production of cheesecake with sweeteners, with low GI, and with fibres. Preparation method accomplished with the addition of milk with 0 % fat content	17/10/2011
28	OBI	1007439	S&B Mousse Water Addition	Mixture for the production of Flutty Cream (Mousse), with chococolate flavour and sweeteners, with no added sugars, with low GI, and with fibres. Preparation method accomplished with the addition of water	17/10/2011
29	OBI	1007436	S&B Mousse Addition of milk	Mixture for the production of Flutty Cream (Mousse), with chococolate flavour and sweeteners, with low GI, and with fibres. Preparation method accomplished with the addition of milk with 0 % fat content	17/10/2011

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
30	OBI	1007995	S&B ice cream vanilla flavour Addition of milk	Mixture for the production of ice cream with vanilla flavor and sweeteners, with low GI and fibres.Preparation method accomplished with the addition of milk with 0 % fat content.	2/7/2012
31	OBI	1007993	S&B ice cream vanilla flavour Addition of water	Mixture for the production of ice cream with vanilla flavor and sweeteners, without sugar, with low GI and fibres. Preparation method accomplished with the addition of water	2/7/2012
32	OBI	1008003	S&B ice cream chocolate flavour Addition of milk	Mixture for the manufacture of ice cream with chocolate flavor and sweeteners, with low GI and fibres. Preparation method accomplished with the addition of milk with 0 % fat content.	2/7/2012
33	OBI	1008004	S&B ice cream chocolate flavour Addition of water	Mixture for the manufacture of ice cream with chocolate flavor sweeteners and without sugar, with low GI and fibres. Preparation method accomplished with the addition of water.	2/7/2012
34	OBI	1007994	S&B semolina halva	Mixture for manufacture of semolina halva with sweeteners, no added sugar, with fibres and low GI.	2/7/2012
35	OBI	1008011	S&B μπάρα δημητριακών	Mixture for no added sugar cereal bar with sweeteners, low GI, with fibres, cinnamon, β -glucan enriched with vitamin A, vitamin D and added steviol glycosides as a sweetener.	2/7/2012
36	OBI	1008343	Soft Serve Frozen Yogurt Ice Cream	Mixture for the preparation of home made soft frozen yogurt ice cream.	17/10/2014
37	OBI	1008344	Soft Serve Ice Cream cookies and cream flavour	Mixture for the preparation of home made soft ice cream with cookies and cream flavour.	17/10/2014

No	Application	Patent Number	Short Patent Description	Detailed Patent Description	Starting Date
38	WIPO	W02013/091668 A1	Low GI Liquid or semi-liquid dessert product	Low GI Liquid or semi- liquid dessert product and method for the preparation	21/12/2011
39	WIPO	W02013/107465 A1	Solid or semi-solid cream, dessert kit	Solid or semi-solid cream, dessert kit and method for the preparation thereof	17/1/2012
40	WIPO	W02013/079084 A1	Bakery product	Bakery product and method for the preparation thereof	2/12/2011

ANNEX 3: RESEARCH PROGRAMS

No	PROJECT CODE	DESCRIPTION OF THE PROJECT	TOTAL BUDGET	SUPERVISING BODY
1	PAVE 1990	Planning and Monitoring the Reliability of a product with long life cycle	24,3 million drachmas	General Secretariat for Research and Technology
2	STRIDE 19911993	Nutritional Policy: Towards developing Research Facilities and Providing Services	200.000 ECU	General Secretariat for Research and Technology
3	PAVE 1992	Development of a reapid method towards determining water soluble vitamins simultaneously in enriched foodstuff in order to be used in the context of Quality Control	30 million drachmas	General Secretariat for Research and Technology
4	PAVE 1994	Development and evaluation of a method determining aflatoxins in nuts, aiming to its implementation in the context of Quality Control	30,6 million drachmas	General Secretariat for Research and Technology
5	PAVE 1994	Industrial Planning of a Baby Foods Production Line of high yield and optimum quality	29,6 million drachmas	General Secretariat for Research and Technology
6	LIFE 1994	Promoting the application of 1836/93 regulation in the Greek Industrial Sector: Pilot Scale application and activities towards publishing relevant information	140.000 ECU	Hellenic Ministry for the Environment, Physical Planning and Public Works
7	RETEX I	Equipment for dealing with industrial waste and scrap	20 million drachmas	Progammes for Applicable Research and Tecnological Development
8	RETEX II	Planning - Development of a Total Quality Control System with IT support	10 million drachmas	Progammes for Applicable Research and Tecnological Development
9	PEPER 95	Novel aggregation procedure towards producing a highly soluble granular cocoa product	12 million drachmas	General Secretariat for Research and Technology
10	SYN 96	Development of a Sausage Roll type of product with long life cycle through the application of Modified Atmosphere Technology	35,5 million drachmas	General Secretariat for Research and Technology
11	RETEX III	Study of the Planning of a Cost Management System using the Activity Based Costing method	9,50 million drachmas	Progammes for Applicable Research and Tecnological Development
12	PAVE 97	Research and Development of a "sponge cake" type of product with long life cycle to be used in confectionery products	41,7 million drachmas	General Secretariat for Research and Technology
13	NUTRITION 98	Development of traditional type bakery products, "breadsticks", with traditional raw materials of high nutritional value	100 million drachmas	General Secretariat for Research and Technology
14	PAVE 99	Research and Development of a "healthy" chocolate type of product through the application of living microorganisms Bifidobacterium	78,94 million drachmas	General Secretariat for Research and Technology

No	PROJECT CODE	JECT CODE DESCRIPTION OF THE PROJECT		SUPERVISING BODY
15	EPV	Health and Safety	26.4 million drachmas	General Secretariat for Research and Technology
16	EPE PROGRAM - METRO 2.3	Saving Energy in YIOTIS Production Facilities	43 million drachmas	General Secretariat for Research and Technology
17	PAVE 00	Planning, development and production of instant preparations based on cereals and plants used in traditional-mediterranean nutrition	138.256.000 drachmas	General Secretariat for Research and Technology
18	EUREKA	Optimising the quality of Baby Foods, through the development and application of specific control methods	352.178€	General Secretariat for Research and Technology
19	EPAN	Development of a complete and novel system for quality management and for safety as well as for achieving traceability through the use of computer science technology	1.621.330 €	General Secretariat for Research and Technology
20	EPAN	Study of the quality levels of Greek Traditional foodstuff and industrialisation of their production	1.679.630€	General Secretariat for Research and Technology
21	EPAN	Planning and Development of new biofunctional foodstuff and dietary supplements, which are based on Mediteterranean diet and biodiversity of the Greek flora	1455040 €	General Secretariat for Research and Technology
22	EPAN	Intercompany System for Customer Support	1.084.287 €	General Secretariat for Research and Technology
23	EUREKA	Planning and Development of new biofunctional foodstuff for adults (age over 40) based on existing plant extracts fo the global market	539.869,00 €	General Secretariat for Research and Technology
24	PAVE	Development and biological evaluation of a new biofunctional food (crystal gel) with Sideritis Euboea (Mountain Tea) and fructo-oligosacharites (FOS), to be consumed by adults (25+)	416.250,00 €	General Secretariat for Research and Technology
25	SYN 09	Development of novel bioprocesses towards exploiting Food Industry's Residues for Biofuel Production	317.500,00€	General Secretariat for Research and Technology
26	11SYN_2_741	Exploitation of the plant Stevia Rebaudiana in Greece for the production of high added-value products, with applications in the food industry	1.980.000,00€	General Secretariat for Research and Technology
27	12CHN156	Design and Development of Low GI foods based on sweetening compounds isolated from Stevia rebaudiana cultivated in China and enriched with vitamins A and D	520.000,00€	General Secretariat for Research and Technology
28	11SYN_2_1528	Efficacy of NOVEL analytical techniques to prEdict the quality and safetY of newly developed pErishable food products	1.600.000,00€	General Secretariat for Research and Technology

No	PROJECT CODE	DESCRIPTION OF THE PROJECT	TOTAL BUDGET	SUPERVISING BODY
29	PAVE 2013	Introduction of Nanoemulsion Technology towards development of oil in water emulsions applicable in foodstuff such as vegetable cream and glazes	300.000,00 €	General Secretariat for Research and Technology
30	LIFE13 ENV	Development of an integrated strategy for reducing the carbon footprint in the food industry sector	1.900.000,00€	EU
31	T1EDK-00232	Production of high-added value bioactive polysaccharides from macroalgae of the Greek seas and their valorization in the development of novel functional food	969.966.18€	EYDE ETAK
32	T1EDK-00235	Holistic Approach along the production cycle of Stevia Rebaudiana plant cultivated in Greece, via combined application of innovative methods of Precision Agriculture and bitter aftertaste removal techniques	1.000.000€	EYDE ETAK
33	DER6-0021436	Study and exploitation of olive oil as innovative raw material for special industrial applications to baby food products	250.000 €	Western Greece Region
34	814588	Recycling and Repurposing of Plastic Waste for Advanced 3D Printing Applications	5.998.832,5 €	EU
35	T7DKI-00100	Development and Demonstration of Key Technologies for Industrializable Polyhydroxyalkanoates Production from Industrial and Environmental Waste Streams	492.650 €	GSRT
36	T7DKI-00484	Development of food products enriched with probiotic cultures embedded in prebiotic matrices	550.000€	GSRT
37	871783	Multimodal spectral sensors and orchestrated deep models for integrated process optimisation	7.046.003,75€	EU
38	861917	Safe Food for Infants in China and the EU	3.999.862,50 €	EU
39	861915	DIgital TEChnologies as an enabler for a conTinuous transformation of food safety system	4.098.672,50€	EU
40	T2EDK-02222	A novel pipeline to enrich formula milk using omics technologies	999.545,00 €	EYDE ETAK
41	T2EDK-02465	Research and development of high nutritional value anti-inflammatory functional foods, enriched in n-3 fatty acids sourced from Greek fisheries and farming byproducts.	999.133,98 €	EYDE ETAK
42	T2EDK-01934	Fast detection of contaminants and adulteration in raw milk using dip-stick nanophotonic sensors	999.159,20 €	EYDE ETAK
43	958478	ENERgy-efficient manufacturing system MANagement	12.377.250,00 €	EU

ANNEX 4: EDUCATION

A. <u>M.Sc.in Food Science</u>

The course lasted twelve months, nine of which were occupied in formal work, whilst the remaining three served to produce an individual study by means of a research project, which was presented in a short thesis. The course gave special emphasis to food chemistry and biochemistry. Lecture courses and practical work included aspects of food technology, food chemistry, biochemistry and chemical analysis.

Lectures analyzing the composition, production and preservation of various foodstuffs, such as meat and food of animal origin and food of plant origin, were offered. On the theoretical side the mathematical modelling of processes such as heat transfer, dehydration, thermal sterilisation, was taught. Food processing practice involved pilot-plant production of various foods (ranging from canned foods and dried milk to confectionery and frozen foods), whereas food analysis practice involved the standard methods of analysis for all the principal foodstuffs, as well as the modern instrumental methods used in food analysis, including Gas - Liquid Chromatography, High Pressure Liquid Chromatography, Infrared Spectroscopy, Nuclear Magnetic Resonance and Spectrofluorimetry. Commodity lectures given, were selected from meat and meat products, fish, eggs and milk, cereal foods, fruit and vegetables, soft drinks, tea, coffee, cocoa and tropical foods, sugar and sugar confectionery, oils and fats. In addition to these microbiology and statistics courses were undertaken to supplement previous studies.

The subject of the research project was "Quantitative Estimation of Nitrosylhaemochromes in Meat Products", and it dealt with the determination of nitrohylhaechromes (the product of the reaction between nitrite and the haem proteins, being the principal colouring compound of cured meat products) in various products. A positive correlation was established between low pH products and high conversion to nitrosylhaemochromes. A new method for determination of these pigments in cured meats with high fat content was proposed.

During my research project I received a small financial award from Schilizzi Foundation (London) which enabled me carrying through the project. After performing well in written examinations, held in September 1981, I was awarded the M.Sc. degree with Distinction. I was also awarded the Dalgety Spillers Ltd. Postgraduate Price for Session 1981-82.

B. <u>Ph. D. in Food Science</u>

Dissociation of Haemoproteins on Solvent Precipitation. A study of the haem proteins, haemoglobin and myoglobin, which, apart from their other functions, are also responsible for the colour and appearance of meat and the various meat products. Supervised by Dr. B.L. Wedzicha (Reader in Food Science, University of Leeds).

During my research I used classical analytical methods (Spectrophotometry, Flamephotometry, Fluorimetry), as well as more advanced techniques for the kinetic study of liberation of haem and protein aggregation (Stopped Flow Technique, Light Scattering). Heavy use of existing computing facilities enabled me to derive a kinetic model, illustrating

the series of reactions taking place when haemoproteins are mixed with solvents, which compared favourably with experimental data.

Results showed that on precipitation of haemoproteins from phosphate buffered solutions with acetone, there is a huge Ph shift toward the acid range which affects the protein, resulting finally in the liberation of haem from the haemoproteins. It was therefore suggested that all analytical data obtained previously in the presence of phosphate ion, had to be reexamined. It was also stated that any protein, prepared by selective precipitation from buffered solutions, might be modified by a change in pH. Lastly a suggestion was given toward the use of this unusual behaviour of haemoproteins as a probe to detect unstable haemoglobins (sickle cell disease) for medical applications.