



CURRICULUM VITÆ

Personal data

Riccardo Maina

born in **Torino** on **April, 7 1971**

personal address: **via Tiraboschi, 25 10149 Torino (TO) – Italia**

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Curriculum studiorium

Degree in chemistry on july 1996 at Turin university, department of analytical chemistry, votation **110/110 lode**; specialization in instrumental analysis.

Degree thesis: *Metal ions azo-sulphonated complexes separation by liquid chromatography, amperometric detection*, with Prof. Corrado Sarzanini.

Spoken languages

Italian, mother language

English, fluent

French, fluent

Courses & Training

Aspetti tecnici dei sistemi Qualità nei Laboratori (16 ore, UNICHIM, 2001)

Stima e valutazione delle incertezze nelle analisi chimiche (8 ore, ULTRA Scientific Italia prof. Herbert Muntau, 2002)

Corso di vendita creativa (32 ore, EKIS Corporate, 2002)

Corso di teambulding (16 ore, EKIS Corporate, 2002)

Criteri e modalità di realizzazione e valutazione dei sistemi di gestione della Qualità dei Laboratori di prova (16 ore, ALPI, 2003)

Corso di formazione per Tecnico Ambientale (60 ore, ECOLAV Formazione srl, 2005/2006), votazione 94/100

Corso «Complex Deal Management» (16 ore, EKIS Corporate, 2007)

Corso «Pianificare lo sviluppo e la crescita» (16 ore, EKIS Corporate, 2008)

Corso « Sistemi di Gestione per la Qualità per i Laboratori di Prova secondo la Norma UNI CEI EN ISO/IEC 17025 ed accreditamento SINAL. » (24 ore, ANGQ, 2009)

Corso «Project Management» (40 ore, Consulman, 2009)

Corso « Privacy per Amministratori di Sistemi e Responsabili IT» (12 ore, Sistemi Spa, 2011)

Awards

Winner, in October 1996 of the **prize Optime** given by Turin's industrial association.

Panelist of the **World Bank** for the application of PCB decontamination processes and project, *China Decontamination Project*

IEC 1906 award in 2008, for research and activity in the field of corrosive sulfur in insulating oils and trnasformers.

Curriculum vitae

1996 – 2001:

R&S responsible in a Surface Coating company.

Chemical Laboratory management.

Development of a ISO 9000 Quality System.

Prototyping, process development.

2001 – today:

Laboratory Manager of Sea Marconi Technologies.

Personnel management, analytical methods and procedures management.

Development and implementation of ISO 9001:2000 Quality System.



Development and implementation of ISO 17025:2005 (accreditation).
 Development of Laboratory Information Management System (LIMS).
 Method validation, auto-control procedures, control charts, and other statistical procedures for test quality assurance.
 Diagnostic consultancy (in-laboratory and in-field) for networks (EDF, RTE, National Grid, Transener, Red Electrica, ENEL, Terna, Edison, Edipower, E.ON, Cofely), transformer manufacturers (JST, ALSTOM-Areva, Tamini, Tironi, GETRA, PAUWELS), large industry (ERG, AGIP, ARKEMA, TOTAL, Rio Tinto, Alcoa).

Specializations

Chromatography (ion chromatography, liquid RP chromatography - HPLC, gas chromatography) and relative detection techniques.
Preconcentration and purification of complex matrixes for chemical analysis.
Spectrophotometry UV-VIS.
Quality Systems development, Quality Control, methods validation.

Projects and products

Development of **software** for the electrical market (utilities, large industry) for transformer managing.
 Development of chemometric models (based on **Fuzzy Logic**) for diagnostic algorithms in the field of oil&transformer maintenance.
 Development of chemometric models (based on **Neural Networks**) for diagnostic algorithms in the field of oil&transformer maintenance.
 Development of **predictive diagnostic applications**.

Normative activity and Standardisation

Member of **IEC TC10** and **Cigre A2, D1**.
Secretary of IEC TC10 MT31 (revisione f the method for particles sizing and counting)
Convenor of IEC TC10 JWG 33 (guidelines for paper thermal life assessment in transformer)
Convenor of IEC TC10 WG 34 (method for the analysis of sospende and dissolved metals in mineral oils)
Leader of Cigre TF A2.32.02 (passivators in mineral oils)
Italian Panelist of Cigre SC A2 (Power transformers)

Published papers & communications

- R. Maina, R. Actis, F. Quagliotti, V. Tumiatti, *Inventario dei pcb/pct/pcbt e diagnosi del degrado funzionale dei trasformatori in esercizio*, OIL & PCBs/POPs Green-Forum 2001, Lecce 20 novembre 2001
- R. Maina, *Detection of Corrosive Sulphur according to ISO 5662/ASTM D 1275 positive and uncertain results on new mineral insulating oils*, MyTransfo 2002, Torino 15-16 ottobre 2002
- R. Maina, *Influence of analytical procedure and sampling on the determination of result uncertainty (according to UNI EN ISO/IEC 17025) – Effects on symptoms trend Analysis in diagnostic applications on transformers*, MyTransfo 2002, Torino 15-16 ottobre 2002
- R. Maina, V. Tumiatti, *L'inventario PCB e le norme analitiche IEC – CEN: aspetti tecnici e analitici in assicurazione Qualità, in accordo con la norma CEI 10-38, 1º Convegno Seriale "Ingegnaria e Chimica per l'Ambiente" – POP, diffusione nell'ambiente, loro controllo tecnologie di abbattimento*, Milano 26-27 novembre 2003
- R. Maina, F. Quagliotti, V. Tumiatti, M. Tumiatti, *Diagnistica dello stato funzionale per la prevenzione danni e l'inventario PCB: aspetti tecnici e analitici in Assicurazione Qualità*, Convegno CEI – APAT "I liquidi isolati e i PCB: la scadenza del 2010 - La nuova Norma CEI 10-38 e le Norme IEC", Milano 12 giugno 2004
- R. Maina, *Test sull'olio per determinazione di Fingerprint (condizioni iniziali). Applicazione di strumenti EPSS e dell'incertezza di misura su previsioni dello stato di degradazione di oli e apparecchi in esercizio*, MyTransfo 2004, Torino 20-21 ottobre 2004
- R. Maina, *Applicative study about IFT (Interfacial Tension)*, MyTransfo 2004, Torino 20-21 ottobre 2004



- M. Pompili, F. Scatiggio, V. Tumiatti, R. Maina, M. Tumiatti, *Corrosive sulfur in insulating oils: its detection and correlated power apparatus failures*, IEEE Trans. On Power Delivery, Vol. 23, NO. 1, 2008
- R. Maina, F.o Scatiggio, S. Kapila, , M. Tumiatti, M. Pompili, *Dibenzyl disulfide (DBDS) as corrosive sulfur contaminant in mineral oils*, Cigre SC A2 website http://www.cigre-a2.org/Site/Publications/download/DBDS_paper_ColourVersionID44VER58.pdf
- R. Maina, *Diagnostic on insulating liquids during the operational life of electrical equipment*, MyTransfo 2006, **Torino** 18-19 ottobre 2006
- V. Tumiatti, R. Maina, F. Scatiggio, M. Pompili and R. Bartnikas, *Diagnostic on insulating liquids during the operational life of electrical equipment*, IEEE Trans. On Power Delivery, Vol. 23, NO. 1, 2008
- V. Tumiatti, R. Maina, F. Scatiggio, M. Pompili and R. Bartnikas, *In Service Reduction of Corrosive Sulfur Compounds in Insulating Mineral Oils*, ISEI 2008, Toronto, June 2008
- R. Maina, *Corrosion Phenomena*, MyTransfo 2008, **Torino** 17-18 dicembre 2008
- R. Maina, *A.I. Systems Implementation for Advanced Diagnostics about State of Degradation*, MyTransfo 2008, **Torino** 17-18 dicembre 2008
- F. Scatiggio, V. Tumiatti, R. Maina, M. Tumiatti, M. Pompili and R. Bartnikas, *Corrosive Sulfur Induced Failures In Oil-Filled Electrical Power Transformers And Shunt Reactors*, IEEE Trans. On Power Delivery, Vol. 24, NO. 3, 2009
- R. Maina, V. Tumiatti, M. Pompili and R. Bartnikas, *Corrosive Sulfur Effects in Transformer Oils and Remedial Procedures*, IEEE Trans. On Power Dielectrics and Electrical Insulation, Vol. 16, NO. 6, 2009
- R. Maina, V. Tumiatti, M. Pompili and R. Bartnikas, *Dielectric Loss Characteristics of Copper Contaminated Transformer Oils*, IEEE Trans. On Power Delivery, Vol. 25, NO. 3, 2010
- F. Scatiggio, R. Maina, V. Tumiatti, M. Pompili and R. Bartnikas, *Long Term Stability of Insulating Mineral Oils Following their Corrosive Sulfur Removal*, ISEI 2010, San Diego, June 2010
- R. Maina, *Monitoring and Inspection of Faulty Transformers*, MyTransfo 2010, **Torino** 23-24 novembre 2010
- R. Maina, V. Tumiatti, F. Scatiggio, M. Pompili and R. Bartnikas, *Transformers Surveillance Following Corrosive Sulfur Remedial Procedures*, IEEE Trans. On Power Delivery, Vol. PP, Issue 99, 2011
- M.C. Bruzzoniti, C. Sarzanini, R.M. De Carlo, R. Maina, V. Tumiatti, *Giaisti in trasformatori di potenza impregnati in olio minerale isolante e potenziali danni ambientali. Indagine su fenomeni di corrosione correlati a contaminazione da sostanze corrosive*, Proc. XII Congresso Nazionale della Divisione di Chimica dell'Ambiente e dei Beni Culturali, Taormina (IT), September 2010, http://www.socchimdabc.it/joomla/documenti/atti_XII_congr.pdf
- R. Maina, V. Tumiatti, M.C. Bruzzoniti, R.M. De Carlo, J. Lukić, D. Naumović-Vuković, *Copper Dissolution and Deposition Tendency of Insulating Mineral Oils Related to Dielectric Properties of Liquid and Solid Insulation*, ICDL 2011, **Trondheim**, June 26-30 2011
- M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, R. Maina, V. Tumiatti, *Determination of copper in liquid and solid insulation for large electrical equipment by ICP-OES. Application to copper contamination assessment in power transformers*, Talanta, vol. 99, 2012, 703-711
- M.C. Bruzzoniti; R. Maina; V. Tumiatti; C. Sarzanini; L. Rivoira; R. M. De Carlo, *Fast low-pressure microwave assisted extraction and gas chromatographic determination of polychlorinated biphenyls in soil samples*, Journal of Chromatography A, vol. 1265, 2012, 31-38

10/12/2012

Chim. Dott. Riccardo Maina