

**Les émulsions pour le nettoyage de surface et l'élimination des couches filmogènes**

**Session de formation permanente organisée par le département des restaurateurs  
avec Paolo Cremonesi, docteur en chimie, spécialiste en conservation-restauration**

**Aubervilliers, 27, 28 et 29 novembre 2024**

**Orientations bibliographiques réalisées par la bibliothèque de l'Inp**

*Tous les documents ci-dessous peuvent être consultés à la Bibliothèque de l'INP, à l'exception de ceux précédés d'un astérisque.*

*Les mémoires des élèves restaurateurs et les bibliographies de l'Inp sont accessibles en ligne sur <https://mediatheque-numerique.inp.fr/>*

**Solution et solubilité**

BARTON Allan F. M., *Handbook of Solubility Parameters and Other Cohesion Parameters*, CRC Press, 1991 (2<sup>nd</sup> ed.)

EASTAUGH Nicholas, « Teas time III », *Picture restorer*, Spring 1995, n°7, p. 12-13

EASTAUGH Nicholas, « Teas time IV », *Picture restorer*, Autumn 1995, n°8

**Théorie de la solubilité aqueuse**

BURKE John, « Solubility Parameters: Theory and Application » [en ligne], in *The AIC Book and paper group annual – 3*, Washington, DC, AIC, Book and Paper Group, 1984, p. 13-18  
< [Solubility Parameters: Theory and Application \(culturalheritage.org\)](http://culturalheritage.org) > (consulté le 22 novembre 2024)

FELLER R. L. « Solubility Parameters », *The International Institute for Conservation of Historic and Artistic Works - Bulletin of the American Group*, 1968, Volume 8, Number 2, p. 20-24

HANSEN Charles M., *Hansen Solubility Parameters: A User's Handbook*, Boca Raton: CRC Press, 2nd rev. ed. (Reimp. de 2007), [25]-519 p.

HEDLEY Gerry, « Solubility Parameters and Varnish Removal: A Survey », In *Measured opinions: Collected papers on the conservation of paintings*, Gerry HEDLEY, Caroline VILLERS (eds), Gainsborough: United Kingdom Institute for Conservation (UKIC), 1993, p. 128ss.

MCGLINCHY Christopher, « Boundaries of the Teas Solubility Concept » [en ligne], *WAAC Newsletter*, 2002, vol. 24, n° 2, p. 17-19  
< <http://cool.conservation-us.org/waac/wn/wn24/wn24-2/wn24-205.html> > (consulté le 22 novembre 2024)

ORMSBY Mark, *Solvent Solver. A Calculator for Working with Teas Fractional Solubility Parameters* [en ligne], S.I. National Archives and Records Administration (NARA), 2006  
< [https://cool.culturalheritage.org/packages/solvent-solver/solvent\\_solver.html](https://cool.culturalheritage.org/packages/solvent-solver/solvent_solver.html) > (consulté le 22 novembre 2023)

PHENIX Alan, « Solubility Parameters and the Cleaning of Paintings: an update and review », *Kunsttechnologie Konservierung*, Heft 2, Jahrgang 12, 1998, p. 387-409

### **PH et conductivité des surfaces peintes**

DILLON Courtney E., LAGALANTE Anthony, WOLBERS Richard C., « Acrylic emulsion paint films: The effect of solution pH, conductivity, and ionic strength on film swelling and surfactant removal », *Studies in Conservation*, Janvier 2014, Vol. 59 n° 1, p. 52-62

DORMAN Nicholas, « Conference Review: The Cleaning of Acrylic Paint Surfaces 3, London Workshop – A space-time continuum of pH and conductivity » [en ligne], *WAAC Newsletter*, 2012, vol. 34, n° 3, p. 18-23  
< <http://cool.conervation-us.org/waac/wn/wn34/wn34-3/wn34-305.pdf> > (consulté le 22 novembre 2024)

GAROFANO MORENO Isabel, « Materiales organicos naturales presentes en pinturas y policromias. Naturaleza, usos y composicion quimica », *Revista ph*, novembre 2011, n° 80, p. 57-71

### **Nettoyage des peintures : méthodes aqueuses**

CREMONESI Paolo, *L'ambiente acquoso per la pulitura di opere policrome*, Padova, Il Prato, 2011, 108 p. (I Talenti. Metodologie, tecniche e formazione nel mondo del restauro, 20)

CREMONESI Paolo, « Combination of a liquid-dispensing and micro-aspiration device for the cleaning of sensitive painted surfaces », *Studies in Conservation*, juillet-aout 2018, Vol. 63, n° 5-6, p. 315-325

CREMONESI Paolo (ed.), *Materiali tradizionali ed innovati nella pulitura dei dipinti e delle opere policrome mobili. Atti del convegno, Piazzola sul Brenta, 25-26 ottobre 2002*, Padova, Il prato, 2003, 96 p.

CREMONESI Paolo, HERITIER Pierre-Antoine, *Un approccio innovativo alla pulitura di superfici dipinte sensibili : la combinazione simultanea di erogazione controllata di liquido e micro-aspirazione = Une approche innovante de nettoyage des surfaces sensibles : utilisation simultanée d'un système de micro-aspiration et d'un apport contrôlé de liquide*, Padova, Il prato, 2017, 144 p.

CREMONESI Paolo, *Tensioattivi e chelanti per il trattamento di opere policrome*, Padova, Il prato, 2021, 239 p.

FELLER Robert L., STOLLOW Nathan, JONES Elizabeth H., *On Picture Varnishes and Their Solvents*, Washington D.C.: National Gallery of Art, 1985, XXIV-260 p.

FUSTER LOPEZ L., CHAROLA A.E., MECKLENBURG Marion F. et al., *Cleaning 2010: New insights into the cleaning of paintings: [conference preprints (abstracts)]*, Universitat politècnica de Valencia, May 26th-28th 2010], Valencia, Universidad politécnica de Valencia, 2010, 108 p.

HACKNEY S., TOWNSEND Joyce H., EASTAUGH N., *Dirt and Pictures Separated*, London: United Kingdom Institute for Conservation (UKIC), 1990, 56 p.

\*KANEGBERG B., KANEGBERG E., *Handbook for Critical Cleaning*, Boca Raton: CRC Press, LLC, 2001

KHANDEKAR Narayan, « A survey of the conservation literature relating to the development of aqueous gel cleaning on painted and varnished surfaces », *Reviews in Conservation*, 2000, n°1, p. 10-20

LEANER Thomas J.S., *Analysis of modern paints*, Los Angeles, Cal.: The Getty conservation institute, 2004, VI-210 p.

\*LEANER Thomas J.S., ORMSBY B., « Cleaning Concerns for Acrylic Emulsion Paints », In *The Conservation of Easel Paintings*, STONER J.H., RUSHFIELD R. (eds), London New York, N.Y.: Routledge, 2012, p. 564-570

LEANER Thomas J.S., SMITHEN Patricia, KRUEGER Jay W. (eds), *Modern Paints Uncovered: Proceedings from the Modern Paints Uncovered Symposium, May 16-19, 2006, Tate Modern, London*, Los Angeles: Getty Publications, 2007

*Materiali Tradizionali ed Innovativi nella Pulitura dei Dipinti e delle Opere Policrome Mobili, primo Congresso Internazionale Colore e conservazione – Materiali e Metodi nel Restauro delle Opere Policrome Mobili, atti del Convegno Piazzola sul Brenta (PD), 25-26 Ottobre 2002, Padova, Il Prato*, 2003

MICHALSKI S., « A physical model of varnish removal from oil paint », In *Cleaning, Retouching, and Coatings. Technology and Practice for easel paintings and polychrome sculpture. Preprints of the Contributions to the Brussel Congress, 3-7 September*, London, International Institute for Conservation of Historic and Artistic Works, 1990, p. 85-93

POSTEC Marie, « De l'intérêt des compresses de gels solvants dans le nettoyage des couches picturales. Une expérience pratique = Omrent het belang van solventgelcompressen bij de reiniging van verflagen. Een praktische ervaring », *Bulletin APROA-BRK*, 2ème trimestre 2008, n° 2, p. 17-23

SONCK Emilie, *Les peintures à l'huile sans couche de protection : approche de la problématique du nettoyage par l'étude des méthodes aqueuses*, mémoire, Bruxelles, Ecole Nationale Supérieure des Arts Visuels de la Cambre, 2007

WOLBERS Richard C., « Recent developments in the use of gel formulations for the cleaning of paintings », in *Restoration'92 - Preprints to the conference held at the RAI international exhibition and congress centre, Amsterdam, 20-22 October 1992*. Ed. TODD Victoria, London, UKIC, 1992, p. 74-75

WOLBERS Richard C., « Un approccio acquoso alla pulitura dei dipinti », *Quaderni CESMAR7*, 2004, n°1

WOLBERS Richard C., *Cleaning painted surfaces, aqueous methods*, London, Archetype Publications, 2000, 198 p. Trad. it. [La Pulitura di superfici dipinte : metodi acquosi], Saonara, Il Prato, 2005. Trad. fr. [Le nettoyage des surfaces peintes : méthodes aqueuses] MIRABAUD Sigrid, DESVOIS Laetitia sous la direction de PALMADE-LE DANTEC Nathalie, Paris, Eyrolles / Institut national du patrimoine (Inp), 2013

WOLBERS Richard C., STAVROUDIS Chris, « Aqueous Methods for the Cleaning of Paintings », In *The Conservation of Easel Paintings*, STONER Joyce Hill, RUSHFIELD Rebecca (eds), London New York, N.Y. : Routledge, 2012 (Routledge Series in Conservation and Museology), p. 500-523

WOLBERS Richard C., STAVROUDIS Chris, « The Cleaning of Paintings », In KANEGBERG Barbara, KANEGBERG Edward, *Handbook for Critical Cleaning, second edition Volume 2: Applications, Processes and Controls*, Boca Raton: CRC Press, 2011

\*WOLBERS Richard C, *Notes for Workshop on New Methods in the Cleaning of Paintings*, Richard C. Wolbers and J. Paul Getty Trust, 1990

WOLBERS Richard C., *Notes for workshop on new methods in the cleaning of painting prepared by Richard C. Wolbers with Nanette T. Sherman and C. Stavroudis = Stage animé par Monsieur Richard Wolbers assisté de Madame Géraldine Guillaume-Chavannes, 17-29 juin 1991*, Paris, ARAAFU, 1991

WOLBERS Richard C., STAVROUDIS Chris, DOHERTY Tiarna, « A new approach to cleaning : using mixtures of concentrated stock solutions and a database to arrive at an optimal aqueous cleaning system », *WAAC newsletter*, 2005, Vol. 27, N° 2, p. 17-28

WOLBERS Richard C., *Un approccio acquoso alla pulitura dei dipinti*, Padova, Il Prato, 2004 (Quaderni del CESMAR7, n° 1)

WOLBERS Richard C, « The use of a synthetic soiling mixture as a means for evaluating the efficacy of aqueous cleaning materials on painted surfaces», *Conservation restauration des biens culturels*, Octobre 1992, n°4, p. 22-29.

#### **Nettoyage des peintures: solvants & émulsions**

ANGELOVA Lora V., BROWYN Ormsby, TOWNSEND Joyce H. et al., (eds), *Gels in the Conservation of Art, [proceedings of the conference jointly organised by International Academic Projects (IAP) and Tate, and held in London, England, October 16-18, 2017]*, London, Archetype Publications, 2017, 406 p.

ANZANI Marilena, BERZIOLI Michela, CAGNA Marco et al., *Gel rigidi di agar per il trattamento di pulitura di manufatti in gesso = Use of rigid Agar gels for cleaning plaster objects*, Saonara, Il Prato , 2008, 55 p.

\*BAGLIONI Piero, BERTI Debora, BONINI Massimo et al., « Micelle, microemulsions, and gels for the conservation of cultural heritage », *Advances in Colloid and Interface Science*, March 2014, volume 205, p. 361-371

BAGLIONI Piero, CARRETTI Emiliano, DEI Luigi et al., « Physicochemical Properties of Polyallylamine Based Gels with CO<sub>2</sub> as Gellant », *J. Am. Chem. Soc.*, 2003, n° 125, p. 5121

\*BAGLIONI Piero, DEI Luigi, CARRETTI Emiliano, « Gels for the Conservation of Cultural Heritage », *Langmuir*, 2009, vol. 25, n°15, p. 8373-8374

\*BAGLIONI Piero, DEI Luigi, CARRETTI Emiliano et al., « Poly(vinyl alcohol)-borate hydro/cosolvent gels, viscoelastic properties, solubilizing power, and application to art conservation », *Langmuir*, vol. 25, n° 15, 2009, p. 8656-8662

\*BERZIOLI Michela, CASOLI Antonella, ISCA Clelia, « Evaluation of Cleaning and Chemical Stabilization of Paper Treated with a Rigid Hydrogel of Gellan Gum by means of Chemical and Physical Analyses » [en ligne], In *Preprints of the ICOM-CC 16th Triennial Congress (Lisbon, 19-23.09.2011)*, p. 1-11  
<<http://bh1.fpc.pt/nyron/Library/catalog/winlibimg.aspx?skey=D9CC5842DBE1407FA25F66716A3899E2&doc=13744&img=3590>> (consulté le 22 novembre 2024)

BELLUCCI Roberto, CREMONESI Paolo, « L'uso dei tensioattivi nella conservazione e nel restauro dei dipinti », *Kermes*, n°24, p. 55-74

BLANK Sharon, STAVROUDIS Chris, « Solvents and Sensibility » [en ligne], *WAAC Newsletter*, vol.11, n° 2, 1989, p. 2-10  
< <http://cool.conservation-us.org/waac/wn/wn11/wn11-2/wn11-202.html> > (consulté le 22 novembre 2024)

BONELLI Nicole, MONTIS Costanza, MIRABILE Antonio et al., « Restoration of paper artworks with microemulsions confined in hydrogels for safe and efficient removal of adhesive tapes », *PNAS* (Proceedings of the National Academy of Sciences of the United States of America), June 5, 2018. 115 (23), p. 5932-5937  
< <https://doi.org/10.1073/pnas.1801962115> > (consulté le 22 novembre 2024)

BORGIOLE Leonardo, PANERO Cristina, *I solventi per il restauro*, Firenze, Phase, 1995, 48 p.

BOON Jaap J., PEULVÉ S. L., VAN DEN BRINK O. F., et al., « Molecular aspects of mobile and stationary phases in ageing tempera and oil paint films », In *Early Italian Paintings Techniques and Analysis, Symposium Maastricht, 9-10 October 1996*, BAKKENIST Tonnie, HOPPENBROUWERS Rene, DUBOIS Helene (eds), Maastricht, Limburg Conservation Institute, 1997, p. 35-56

BURNSTOCK Aviva, KIESLICH Tanya, « A study of the clearance of solvent gels used for varnish removal from paintings », in *ICOM Committee for Conservation, 11th Triennial Meeting, Edinburgh, Scotland, 1-6 September 1996*, Londres, James and James, 1996, p. 253-262

BURNSTOCK A., LEARNER T., « Changes in the surface characteristics of artificially aged mastic varnishes after cleaning using alkaline reagents », *Studies in Conservation*, 1992, 37, p. 165-184

BURNSTOCK Aviva, WHITE Raymond, « Cleaning gels. Extrait further studies », In TENNENT Norman H. (ed.), *Conservation Science in the UK. Preprints of the meeting held in Glasgow, May 1993*, London, James & James Science Publishers, 1993, p. 36-39

CAMPANI Elisa, CASOLI Antonella, CREMONESI Paolo, *L'uso di Agarosio e Agar per la preparazione di "gel rigidi" = Use of Agarose and Agar for preparing "rigid gels"*, Saonara, Il prato, 2007, 52 p. (I Quaderni del CESMAR7, 4)

CARRETTI Emiliano, DEI Luigi, BAGLIONI Piero, « Aqueous Polyacrylic Acid Based Gels: Physicochemical Properties and Applications in Cultural Heritage Conservation », *Progress in Colloid and Polymer Science*, 2002, n° 119

\*CARRETTI Emiliano, DEI Luigi, MACHERELLI Azzurra, « Rheoreversible polymeric organogels, the art of science for art conservation », *Langmuir*, Vol. 20, n° 20, 2004, p. 8414-8418

CARRETTI Emiliano, DEI Luigi, WEISS Richard G, « Soft matter and art conservation. Rheoreversible gels and beyond », *Journal of material chemistry*, 2005, Vol. 15, n° 22, p. 17-22

CARRETTI Emiliano, GRASSI Scilla, COSSALTER Manuela et al, « Poly(vinyl alcohol)-Borate Hydro/Cosolvent Gels, Viscoelastic Properties, Solubilizing Power and Application to Art Conservation », *Langmuir, the ACS journal of surfaces and colloids*, 2009, vol.25, n° 15, p. 8656-8662

CASOLI Antonella, CREMONESI Paolo, CATALINI Piera, et al., « Studio anallitico dei solventi organici impiegati nella rimozione di adesivi sulle plastiche », in *Lo Stato dell'arte. XI congresso nazionale IGIIC: volume delle atti* : Bologna, Accademia Delle Belle Arti, 10-12 ottobre 2013, p. 35-42

CREMONESI Paolo, *L'Uso dei solventi organici nella pulitura di opere policrome*, Saonara, Il Prato, 2004, 166 p. (I Talenti. Metodologie, tecniche e formazione nel mondo del restauro, 7)

CREMONESI Paolo, SIGNORINI Erminio, « L'uso dei solventi organici neutri nella pulitura dei dipinti: un nuovo test di solubilità », *Progetto restauro*, 2004, n° 31, p. 2-15

CREMONESI Paolo, et al., « Preparazione e utilizzo di Solvent Gels, reagenti per la pulitura di opere policrome », *Progetto Restauro*, giugno 2000, n° 15, p. 25-33

CREMONESI Paolo, *Materiali e metodi per la pulitura di opere policrome*, Bologna, PHASE, 1997, 142p.

CREMONESI Paolo, « Un Approccio Metodologico alla Pulitura dei Dipinti », In *Lo Stato dell'Arte, Conservazione e restauro, Confronto di Esperienze, atti del I Congresso Nazionale IGIIC*, Torino, IGIIC, 2003, p. 100-109

DALE SMITH Gregory, JOHNSON Ronald, « Strip 'Teas'. Solubility data for the removal (and application) of low molecular weight synthetic resins used as inpainting media and picture varnishes » [en ligne], *WAAC Newsletter*, Janvier 2008, Vol. 30, n° 1, p. 11-19

<https://cool.culturalheritage.org/waac/wn/wn30/wn30-1/wn30-105.pdf> (consulté le 22 novembre 2024)

DAUCHOT-DEHON Michèle, « Les effets des solvants sur les couches picturales. Alcools et acétone », *Bulletin de l'IRPA*, 1973, n° 14, p. 89-104

DORGE Valerie (ed), *Solvent gels for the cleaning of works of art, the Residue Question*, Los Angeles, The Getty Conservation Institute, 2004, XI-160 p.

FELLER R.L., « The Relative Solvent Power Needed to Remove Various Aged Solvent Type Coatings », in *Conservation of paintings and the graphics arts - Preprints of contributions to the Lisbon congress 1972* (9-14 October 1972), London, IIC, 1972, p. 9.

FORD Bruce, BYRNE Allan, « The lipid stripping potential of resin soap gels used for cleaning oil paintings » [en ligne], *AICCM Bulletin*, 1991, vol. 17, n° 1 et 2, p. 51-60  
<<http://www.tandfonline.com/doi/abs/10.1179/bac.1991.17.1-2.004>> (consulté le 22 novembre 2024)

GIORGI Rodolico, BAGLIONI Piero, BERTI Debora et al., « New methodologies for the conservation of cultural heritage, micellar solutions, microemulsions, and hydroxide nanoparticles », *Accounts of chemical research* - Vol. 43, Issue 6, n° spécial: *Advanced techniques in art conservation*, June 15, 2010, p 695-704

HEDLEY Gerry, ODLYHA M., BURNSTOCK Aviva, TILLINGHAST JHUSBAND C., « A study of the mechanical and surface properties of oil paint films treated with organic solvents and water », in *Measured opinions : Collected papers on the conservation of paintings*, Gerry HEDLEY, Caroline VILLERS (eds), Gainsborough : United Kingdom Institute for Conservation (UKIC), 1993, p. 103-111

KHANDEKAR Narayan, « A survey of the conservation literature relating to the development of aqueous gel cleaning on painted and varnished surfaces », *Reviews in Conservation*, 2000, n°1, p. 10-20

KHANDEKAR N., PHENIX A., SHARP J., « Pilot study into the effects of solvents on artificially aged egg tempera films », *The Conservator*, 1994, 18, p. 62-72

MASSCHELEIN-KLEINER Liliane, « Remarques sur l'utilisation des solvants en conservation », *Conservation Restauration*, 1988, n°9, p. 28-33

MASSCHELEIN-KLEINER Liliane, *Les solvants*, Bruxelles, Institut Royal du Patrimoine Artistique, 1981, 129 p. [Cours de conservation, T. 2]

\*ODEGARD N., CAROLL S., ZIMMT W., « Chemical Safety », in *Material Characterization Tests for Objects of Art and Archeology*, London: Archetype Publications, 2000, p. 7-17

PHENIX Alan, WOLBERS Richard, « Removal of Varnish: Organic Solvents as Cleaning Agents », in *The Conservation of Easel Paintings*, STONER Joyce Hill, RUSHFIELD Rebecca (eds), London New York, N.Y. : Routledge, 2012 (Routledge Series in Conservation and Museology), p. 524-554

PHENIX Alan, « Solvent Abuse. Some observations on the safe use of solvents in the cleaning of painted and decorated surfaces » [en ligne], *The Building Conservation Directory*, 1997

<<https://www.buildingconservation.com/articles/solvent/solvent.htm>> (consulté le 22 novembre 2024)

PHENIX Alan, « The Swelling of Artists' Paints in Organic Solvents. Part 1, A Simple method for measuring the in-plane swelling of unsupported paint films », *Journal of the American Institute for Conservation*, 2002, vol. 41, n° 1, p. 43-60

PHENIX Alan, « The Swelling of Artists' Paints in Organic Solvents. Part 2, Comparative swelling powers of selected organic solvents and solvent mixtures», *Journal of the American Institute for Conservation*, 2002, vol. 41, n° 1, 61-90

RAVENEL Nancy, « Pemulen® TR-2: An Emulsifying Agent with Promise » *WAAC Newsletter* [en ligne], Septembre 2010, Vol. 32, n° 3, p. 10-12 <<http://cool.conservation-us.org/waac/wn/wn32/wn32-3/wn32-304.pdf>> (consulté le 22 novembre 2024)

SUTHERLAND Kenneth Robert, *Solvent Extractable Components of Oil Paint Films*, Amsterdam, FOM Institute for Atomic and Molecular Physics, 2001 (MOLART Report Series n° 3)

SUTHERLAND Kenneth Robert, « Solvent-extractable components of linseed oil paint films », *Studies in Conservation*, 2003, 48, p. 111-135

SUTHERLAND Kenneth Robert, « The extraction of soluble components from an oil paint film by a varnish solution », *Studies in Conservation*, 2000, 45, p. 54-62

SUTHERLAND Kenneth, « Measurements of solvent cleaning effects on oil paintings», AIC Journal of the American Institute for Conservation, Fall-winter, 2006, Vol. 45 n° 3, p. 211-226.

STAVROUDIS Chris, « Gels: Evolution in Practice », in ANGELOVA Lora (ed), *Gels in the Conservation of Art*, London, Archetype Publications, 2017, p. 209-217

STAVROUDIS Chris, « More from CAPS 3: surfactants, silicone-based solvents, and microemulsions », *WAAC Newsletter*, 2012, vol. 34, n° 3, p. 24-27

< <http://cool.conservation-us.org/waac/wn/wn34/wn34-3/wn34-306.pdf> > (consulté le 22 novembre 2024)

STAVROUDIS Chris, « Pemulen Revised: pHuck the pH Meter », *WAAC Newsletter*, 2012, vol. 34, n° 2, p. 19

< <http://cool.conservation-us.org/waac/wn/wn34/wn34-2/wn34-206.pdf> > (consulté le 22 novembre 2024)

STAVROUDIS Chris, « Silicone-Based Solvents in Conservation. As free solvents and components of gel systems and microemulsions », in *Dall'olio all'acrilico, dall'impressionismo all'arte contemporanea - Monographie : studi, ricerche, indagini scientifiche ed interventi conservativi. Atti del VII Congresso Internazionale Colore e Conservazione, Politecnico di Milano, 13-14 November 2015*. A cura di Valentina Emanuela SELVA BONINO, CESMAR7 (Centro per lo Studio dei Materiali per il Restauro), Saonara, Il Prato, 2016, p. 176-184

STAVROUDIS Chris, « Sorting Out Surfactants » [en ligne], *WAAC Newsletter*, 2009, vol. 31, n° 1, p. 18-21

< <http://cool.conservation-us.org/waac/wn/wn31/wn31-1/wn31-105.pdf> > (consulté le 22 novembre 2024)

STAVROUDIS Chris, BLANK Sharon, « Solvents & Sensibility » [en ligne], *WAAC Newsletter*, May 1989, vol. 11, n° 2, p. 2-10

< <https://cool.culturalheritage.org/waac/wn/wn11/wn11-2/wn11-202.html> > (consulté le 22 novembre 2024)

STAVROUDIS Chris, DOHERTY Tiarna, « A Novel Approach to Cleaning II: Extending the modular cleaning program to solvent gels and free solvents, part 1 » , *WAAC Newsletter*, 2007, vol. 29, n° 3, p. 9-15

< <http://cool.conservation-us.org/waac/wn/wn29/wn29-3/wn29-304.pdf> > (consulté le 22 novembre 2024)

STAVROUDIS Chris, LYJuliana, WILLIAMS Donna, « Solvents and Hansen Space in the MCP, something new and useful », *WAAC Newsletter*, septembre 2019, Vol. 41 n° 3, p. 11-15 [en ligne] [https://www.waac-us.org/\\_files/ugd/d3b1ca\\_d4ed9d36fb224fbda15af6f3a7ec1254.pdf](https://www.waac-us.org/_files/ugd/d3b1ca_d4ed9d36fb224fbda15af6f3a7ec1254.pdf) (consulté le 22 novembre 2024)

STOLOW Nathan, « Application of science to cleaning methods: solvent action studies on pigmented and unpigmented linseed oil films », in *Recent advances in conservation. Contributions to the IIC Rome conference 1961*, London, <Butterworths>, 1963, p. 84-88

STULIK Dusan C., KHANJIAN Herant, DORGE Valerie, DE TAGLE Alberto, « Scientific investigation of surface cleaning processes : quantitative study of gel residue on porous and topographically complex surfaces », in *ICOM, 13Th triennial meeting Rio de Janeiro, 22-27 September 2002*, London : James & James, 2002, p. 245-251

TORRACA Giorgio, *Solubilità e solventi. Note per restauratori* [périodique n° spécial], *Bollettino [del Centro di Studi per la Conservazione della Carta]*, 1987/1988, n° 1, 61 p.

TORRACA Giorgio, *Solubilité et solvants utilisés pour la conservation des biens culturels*, [traduit de l'anglais], Rome, ICCROM, s.d. [1990], 78 p.

TSANG Jia-Sun, ERHARDT David, « Current Research on the Effects of Solvents and Gelled and Aqueous Cleaning Systems on Oil Paint Films », *Journal of the American Institute for Conservation*, 1992, vol. 31, n° 1, p. 87-94

WHITE Raymond, ROY Ashok, « MS and SEM studies on the effects of solvent cleaning on old master paintings from the National Gallery, London », *Studies in Conservation*, 1998, 43 p. 159-176

\*WYPYCH George, *Handbook of Solvents*, Toronto: ChemTech Publishing, 2001, XXV-1675 p.

### Vidéos réalisées par le Getty Conservation Institute

Calibrating Conventional pH Meters

< <https://www.youtube.com/watch?v=9Ktlz0uw6kw> >

Calibrating pH and Conductivity: Horiba Meters

< [https://www.youtube.com/watch?v=\\_nx3gNnKsUE](https://www.youtube.com/watch?v=_nx3gNnKsUE) >

Preparing pH- and Conductivity- Adjusted Water

< <https://www.youtube.com/watch?v=hGAUAgNYZjl> >

Preparing a Pemulen Gel from MCP and Making an Emulsion

< <https://www.youtube.com/watch?v=2O5pYyc45Qo> >

Making Agarose Gel and Preparing an Agarose Plug

< <https://www.youtube.com/watch?v=SX4n2DO6Lao> >

Measuring Surface pH and Conductivity Using Water Drop and Agarose Plug Methods

< <https://www.youtube.com/watch?v=bOqZEE7Kb8Y> >

Mixing and Using Velvessil Plus

< <https://www.youtube.com/watch?v=i6cet8sa-6Y> >

Preparing a Dow Mineral Spirits Microemulsion (With Cosurfactants)

< <https://www.youtube.com/watch?v=SGkf3i7rnDw> >

Preparing a Silicone Microemulsion (With Cosurfactant) – [without cosurfactant]

< <https://www.youtube.com/watch?v=xDpwloLqJS4> >

### Autres bibliographies réalisées par la bibliothèque de l'inp

Programme modulaire pour le nettoyage des polychromies / Modular Cleaning Program MCP : les gels de solvants

< [Programme modulaire pour le nettoyage des polychromies : méthodes aqueuses - niveau 1 | Inp - Médiathèque numérique](#) > (consulté le 22 novembre 2024)

Notions chimiques et physico-chimiques sur le principe du nettoyage

< [Notions chimiques et physico-chimiques sur le principe du nettoyage | Inp - Médiathèque numérique](#) > (consulté le 22 novembre 2024)

