

ICC Medical Imaging Working Group

San Diego

5th November 2016

5th November: Guy Fawkes night



THE CHEMISTRY OF FIREWORK COLOURS



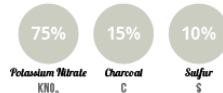
COLOUR PRODUCERS



Metal compounds which produce an intense colour when burned. Some are listed above.

FUEL

Gunpowder Composition



ENERGY DENSITY
3 MEGAJOULES PER KG

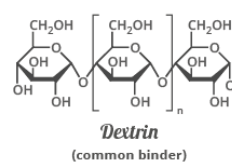
Allows firework to burn; gunpowder, (potassium nitrate, sulfur & charcoal), is often used.

OXIDISER



Usually nitrates, chlorates or perchlorates; required to provide oxygen for the combustion of fuel.

BINDER



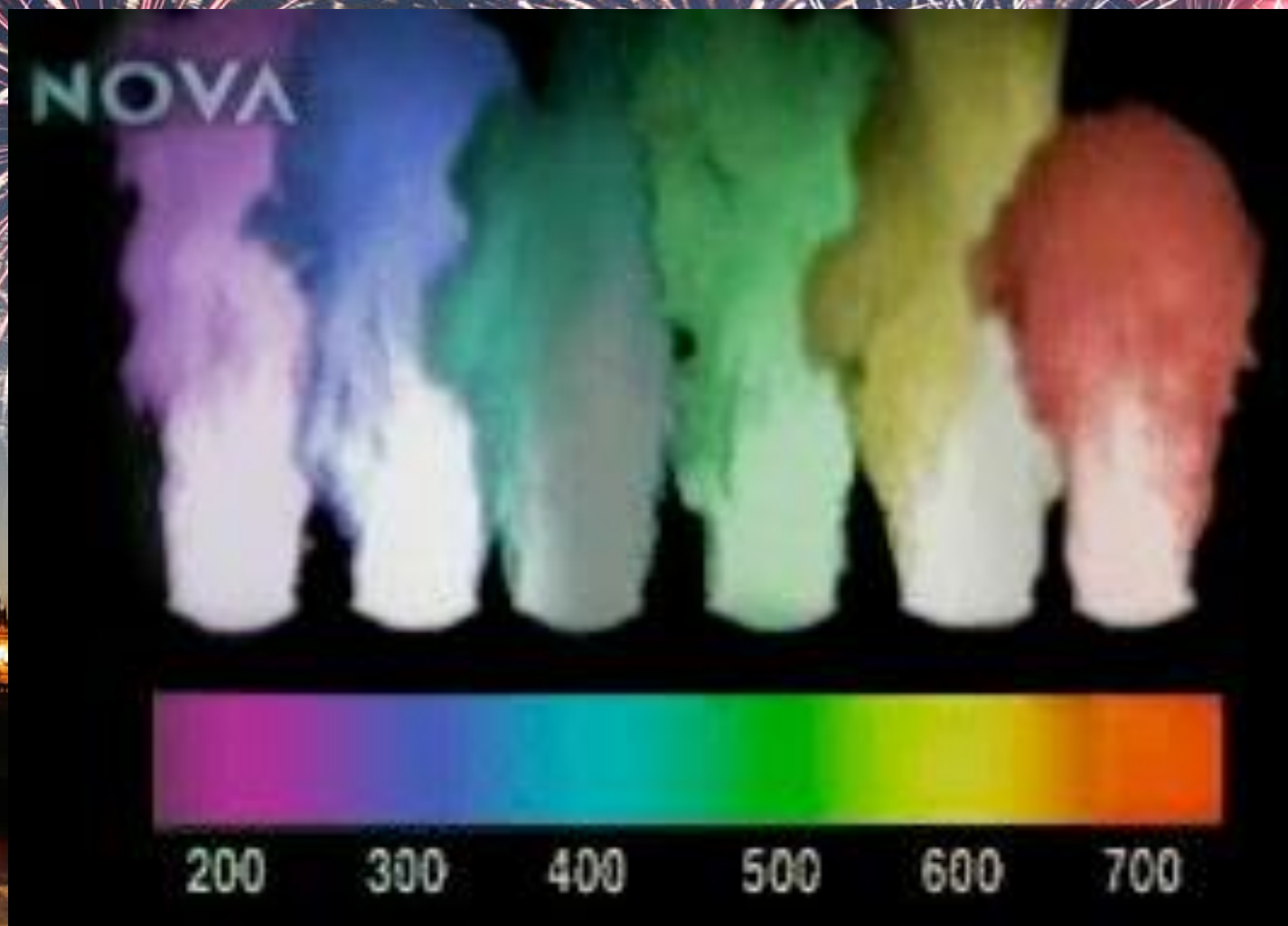
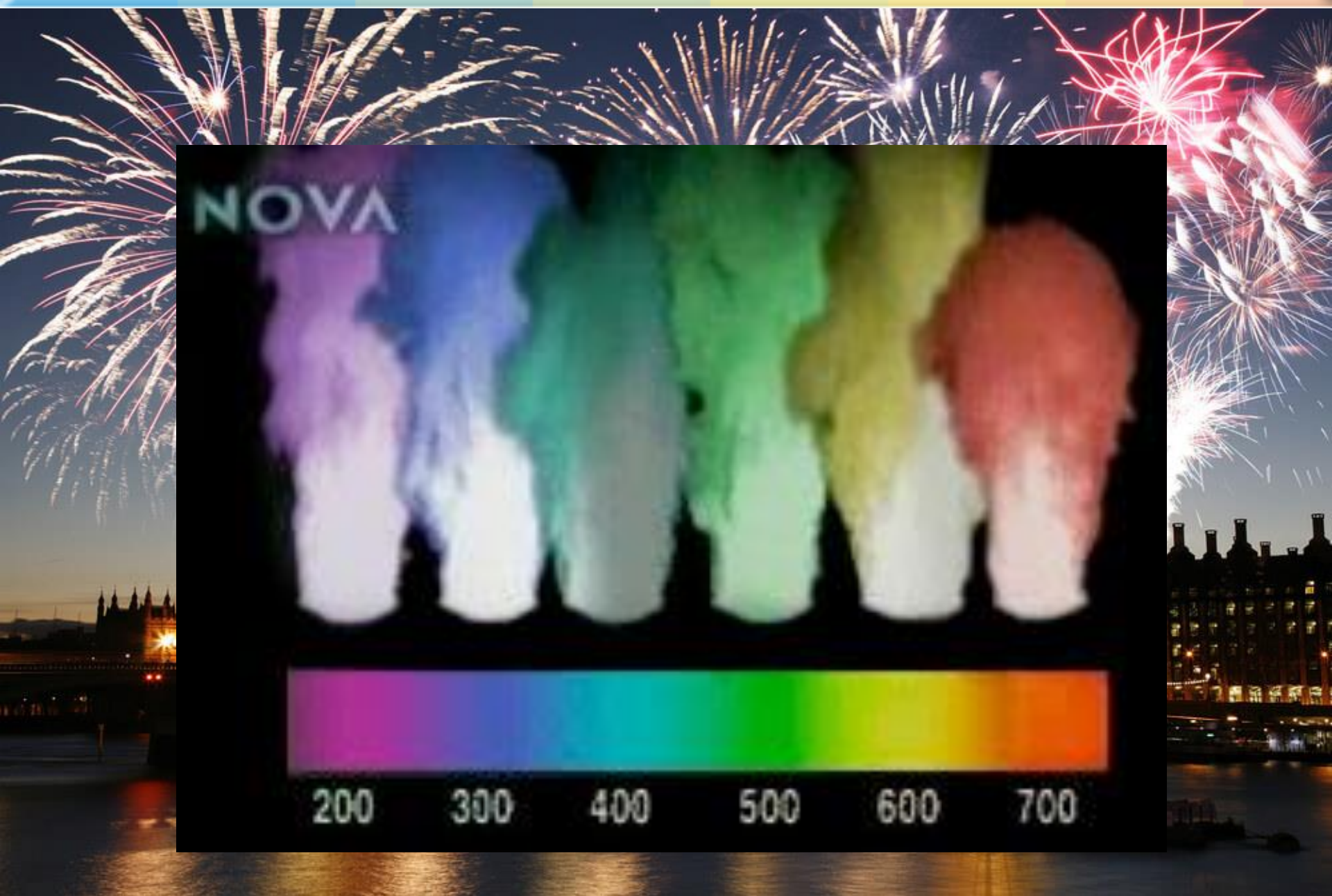
Hold the mixture together; the most commonly used is a starch, dextrin, dampened with water.

CHLORINE DONOR




Chlorine donors help strengthen some colours. Some oxidisers can also act as chlorine donors.













ICC MIWG web page at www.color.org



International Color Consortium

MAKING COLOR SEAMLESS BETWEEN
DEVICES AND DOCUMENTS

[ABOUT ICC](#)
[RESOURCES](#)
[INFORMATION](#)
[MEMBERS](#)
[GETTING STARTED](#)
[V4](#)
[iccMAX](#)

ICC: EVENTS:

[All ICC Events](#)

2016

[2016 ICC DevCon](#)

[Medical Imaging, 5 Nov
San Diego](#)

[Displays & 3D print, 5-6
May Taipei](#)

[ICC Meetings - Taipei](#)

[Print Business Outlook
Conference, Mumbai,
March 15](#)

[NPES-ICC Color
Management
Conference, Jakarta,
March 17](#)

[Upcoming ICC Meetings](#)

2015

[iccMAX Webinar April 22](#)

[Medical Imaging
Experts Day Mar 4](#)

[Other ICC Medical](#)

ICC Medical Imaging Working Group

The Working Group arose out of the **Summit on Color in Medical Imaging** held in Silver Spring, Maryland in May 2013. It exists to enable and promote the correct and effective use of ICC color management for medical imaging.

Current activities:

- Whole slide imaging
- Medical displays
- Color eye model
- Best practices for digital color photography in medicine
- Colour support for mobile devices
- Framework for multispectral imaging
- Petri plate calibration
- Imaging and reproduction of skin
- DICOM camera raw support and EXIF tags
- Open source reference implementation
- Best practice papers for colour in DICOM

Summary of all MIWG **work items**

Upcoming MIWG meetings

Date	Location	Topic
5 November 2016	San Diego	Full WG meeting


Details of meetings will be posted when available. If you wish to participate in a meeting, please contact the **ICC Secretary**

Previous meetings
Meetings and minutes
Action items

SEARCH ICC:

 GO

Got a question about ICC Profiles or colour management?



[Ask Phil...](#)

ICC: LIVE TOPICS:

[iccMAX](#)

[iccMAX Reference Implementation - v2.1.5 released](#)

[ICC DevCon2016 program now available](#)

[Profile security](#)

[ICC Medical Imaging Working Group](#)

[New ICC White Paper on visualisation of colour on medical displays](#)

[Research fund](#)

[Display calibration](#)

[New PRMG-based exchange profile for digital print](#)

[Profiling tools](#)

[ICC Profile Registry](#)

ICC MIWG Working group meeting

Saturday 5th November, 13:45-16:30

- Introductions
- Colour calibration for Petri dish imaging Jérémie Pescatore
- Gjøvik masters course on colour in medical imaging Phil Green
- Updating FAQ 'How do I assess the accuracy of a display profile?'
Phil Green
- Medical photography white paper John Penczek
- How to determine the gamut boundary of a display profile Phil Green
- Skin imaging update Kaida Xiao
- Action items review Craig Revie

Action items review

MIWG-14-16	MIWG	Include recommendation on white surface to be included in scene in medical photography guidelines	03-03-2014	Penczek, Green	Close
MIWG-15-30	Displays	Make assessment targets available to group	13-10-2015	Kimpe	O
MIWG-15-34	WSI	Provide input on calibration errors using different types of training sets	13-10-2015	Holm / Walowit	O
MIWG-16-01	Petri plate	Send Petri plate imaging guidelines for review by MIWG	16-02-2016	Pescatore	Close
MIWG-16-02	Displays	Edit WP44 and circulate for review by end February	16-02-2016	Kimpe / Bai / Revie	Close
MIWG-16-04	Displays	Circulate draft recommendation on display devices for radiology to members	16-02-2016	Revie	Close
MIWG-14-29	Ophthalmology	Provide paper on Phase 1 results for publication on ICC web site	19-06-2014	Sisson	O
MIWG-16-07	Photography	Provide further input on medical photography guidelines and workflow figure to Penczek	16-02-2016	Hung	Close
MIWG-16-10	Photography	Provide poster on camera calibration	04-05-2016	Vander Haeghen	Close
MIWG-16-11	Photography	Provide document on camera calibration research project for ICC web site	04-05-2016	Vander Haeghen	O

Action items review (continued)

MIWG-16-12	Displays	Discuss ICS for GSDF and report back to MIWG	04-05-2016	Bai, Derhak, Nagashima-san, Kimpe	O
MIWG-16-13	WSI	Compile list of items for information and guidance for FDA guidance document and post on ICC web site	04-05-2016	Olsen, Vander Haeghen, Chang, Revie, Badano, Green	Close
MIWG-16-05	Displays	Provide comments on draft recommendations on display devices for radiology to Revie	16-02-2016	Martin / Nagashima-san / Bai / Kimpe / Pescatore / Vogh	Close