

**FATIMA COLLEGE (AUTONOMOUS), MADURAI-18**

**DEPARTMENT OF CHEMISTRY**

- Title** : One-day webinar on “**Iron Based MRI Contrast Agents**”
- Date** : 22-07-2020
- Resource Person/s** : Dr. R. Mayil Murugan,  
Assistant Professor,  
Department of Physical Chemistry,  
School of Chemistry,  
Madurai Kamaraj University,  
Madurai
- No. of Participants** : 153
- Focus on** : **Skill Development**
- Outcome** : **Students were exposed to technique of** biomedical version of NMR and acquired knowledge on applications of Iron III agents with biotin which would develop the analytical skills of the student.

**REPORT STATE LEVEL WEBINAR ON “IRON BASED MRI CONTRAST AGENTS” on  
22nd July,2020.**

A One-day webinar on “**Iron Based MRI Contrast Agents**” was organised by the Department of Chemistry on 22<sup>nd</sup> July 2020 at Fatima College. Dr. B. Medona, Head, Department of Chemistry, welcomed the gathering and introduced the programme to all. The technical session was presented by Dr. R. Mayilmurugan Assistant professor, Department of Physical Chemistry, School of Chemistry, Madurai Kamaraj University on the topic “**Iron Based MRI Contrast Agents**”.

Dr. Mayilmurugan shared his research experiences about biomedical version of NMR, and magnetic images and discussed about different contrasting agents. He gave detailed information about Gadolinium contrasting agents available in the market and transition metal MRI contrast agents. He discussed about CEST – Chemical Exchange Saturation Transfer, Diacast and para cest. Finally, he concluded the session by sharing details about Iron III agents with biotin and its uses. More than 150 students participated in the webinar. The programme ended with vote of thanks given by Mrs. V. Arul Deepa, Assistant Professor, Department of Chemistry, Fatima college.

## Invitation



**WEBINAR**  
**JULY**  
**22**  
**10 AM**

**FATIMA COLLEGE (AUTONOMOUS)**  
COLLEGE WITH POTENTIAL FOR EXCELLENCE (2004 -2019)  
(RE-ACCREDITED WITH 'A' GRADE BY NAAC III CYCLE)  
74TH RANK IN INDIA RANKING 2020 (NIRF) BY MHRD  
**MARY LAND, MADURAI - 625 018**

**DEPARTMENT OF CHEMISTRY**

- ✓ FREE REGISTRATION
- ✓ FACULTY MEMBERS, RESEARCH SCHOLARS & STUDENTS ARE INVITED
- ✓ E-CERTIFICATE WILL BE PROVIDED AFTER SUBMITTING THE FEEDBACK.



**RESOURCE PERSON: DR.R.MAYIL MURUGAN**  
Assistant Professor,  
Department of Physical chemistry,  
School of chemistry, Madurai Kamaraj University,  
Madurai, Tamilnadu

**TITLE: "IRON-BASED MRI CONTRAST AGENTS"**

**FOR QUERIES, SUGGESTIONS, COMMENTS CONTACT**  
priyadharsanim1@gmail.com  
aruldeepa0608@gmail.com

**Welcome Address**  
**DR.B.MEDONA, HEAD**  
DEPARTMENT OF CHEMISTRY, FATIMA COLLEGE  
**DR.SR.G.CELINE SAHAYA MARY**  
**PRINCIPAL**

To Register: <https://forms.gle/vmZBDM9oFmsq8cpv6>

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**Screenshots of the Webinar** - Dr. R. Mayil Murugan, Assistant Professor, Department of Physical Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai presenting his lecture

**Iron-Based MRI-Contrasting Agents**

Dr. Ramasamy Mayilmurugan  
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Madurai Kamaraj University  
Madurai - 625 021, India  
E-mail: [mayilmu@ramamu.ac.in](mailto:mayilmu@ramamu.ac.in)

**Iron-Based MRI-Contrasting Agents**

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[ramamayil@gmail.com](mailto:ramamayil@gmail.com)

**Dioxygen Activation by Non-heme Bioinspired Models**

Catal. Sci. Technol. 2020 (Accepted)  
Inorg. Chem. 2020 (Accepted)  
Catal. Sci. Technol. 2019, 9, 5991  
Inorg. Chem. Commun. 2019, 110,  
Dalton Trans. 2019, 48, 14326.  
Chem. Eur. J. 2019, 25, 9540.  
J. Catal. 2019, 372, 352.  
Dalton Trans. 2018, 47, 4049.  
(communi)

**Relaxivity Studies**

Graphs showing  $r_1$  and  $r_2$  values vs Concentration (mM) and pH.

- Relaxivity enhancement to 2.7 - 3.08  $\text{mM}^{-1} \text{s}^{-1}$  (~31 %) at pH 8
- Decrease in the  $r_1$  value at pH 4 is about ~47 %
- $r_1$ -values 18% decreased over 48

### LIST OF PARTICIPANTS

| S.No | Reg.No  | Name                         |
|------|---------|------------------------------|
| 1.   | 2018C01 | AISHWARYA R                  |
| 2.   | 2018C02 | ANNAPOORANI ALIAS VARSHINI E |
| 3.   | 2018C03 | ANUSIYA A                    |
| 4.   | 2018C04 | ASHA BANU A                  |
| 5.   | 2018C05 | BACKIYA LAKSHMI M            |
| 6.   | 2018C06 | BHANUPRIYA P                 |
| 7.   | 2018C07 | BINDHU B                     |
| 8.   | 2018C08 | BUSPIT HEARIN JUDE P J       |
| 9.   | 2018C09 | FATHIMA ROSELIEN S           |
| 10.  | 2018C10 | GAYATHRI S                   |
| 11.  | 2018C11 | HEMA DHARSHINI R             |
| 12.  | 2018C13 | JANANI H                     |
| 13.  | 2018C14 | JANANI R                     |
| 14.  | 2018C15 | JASMINE JENOBHA D            |
| 15.  | 2018C16 | JAYASUDHA J                  |
| 16.  | 2018C17 | JENIFER T                    |
| 17.  | 2018C18 | JESLIN SNEHA J               |
| 18.  | 2018C19 | KARTHIGA SELVI R             |
| 19.  | 2018C21 | KEERTHIKA K                  |
| 20.  | 2018C22 | KEERTHIKA K                  |
| 21.  | 2018C24 | MAGIMAGRACE V                |
| 22.  | 2018C25 | MANSOORUL SAJITHA THASLEEM M |
| 23.  | 2018C26 | MARIYA JOSE PRINCIYA J       |
| 24.  | 2018C27 | MARY JERAFIN S               |

|     |         |                         |
|-----|---------|-------------------------|
| 25. | 2018C28 | MERLIN MARIA PRAVEENA A |
| 26. | 2018C29 | POOJA V                 |
| 27. | 2018C30 | RAJA DHIVYA K R         |
| 28. | 2018C31 | REGINA THERASA S        |
| 29. | 2018C32 | SHEEBA K                |
| 30. | 2018C33 | SOWMIYA S               |
| 31. | 2018C34 | SRI HARSHINI M          |
| 32. | 2018C35 | SUBASHINI V             |
| 33. | 2018C36 | SWETHA S                |
| 34. | 2018C37 | SWETHA T                |
| 35. | 2018C38 | VISWATHIKA K            |
| 36. | 2018C39 | YOGALAKSHMI C           |
| 37. | 2018C40 | YOHAE SWARI J           |
| 38. | 2018C41 | DHARSHANA R             |
| 39. | 2018C42 | INFANTA JENIFER A       |
| 40. | 2018C43 | SUBASHINI M             |
| 41. | 2018C44 | YOGAPRIYA T             |

|     |         |                     |
|-----|---------|---------------------|
| 42. | 2019C02 | ANTO THERASITA I    |
| 43. | 2019C03 | AROKEYA RUBIKA M    |
| 44. | 2019C04 | ARULSNEHA A         |
| 45. | 2019C06 | DELICIA A           |
| 46. | 2019C07 | GLORY S             |
| 47. | 2019C09 | INFANTA SNEKA J     |
| 48. | 2019C10 | JOBIKAMARY S        |
| 49. | 2019C11 | JOTHIMANI V         |
| 50. | 2019C12 | KARTHIKA R          |
| 51. | 2019C13 | KASTHURI S          |
| 52. | 2019C14 | KOWSHIKA K          |
| 53. | 2019C15 | MAHALAKSHMI R       |
| 54. | 2019C16 | MALATHY R           |
| 55. | 2019C17 | MARAGATHAVALLI P    |
| 56. | 2019C18 | MUGIL MELVENA E     |
| 57. | 2019C19 | NISHA R             |
| 58. | 2019C20 | PANDIYAMMAL L       |
| 59. | 2019C21 | PAVITHRA K          |
| 60. | 2019C22 | PAVITHRA M          |
| 61. | 2019C24 | PRINCY REMIFA D     |
| 62. | 2019C25 | PRIYADHARSHINI M    |
| 63. | 2019C26 | RENCY S             |
| 64. | 2019C27 | RESHMA V            |
| 65. | 2019C28 | RUBY S              |
| 66. | 2019C29 | SABITHA JOAN V      |
| 67. | 2019C30 | SAKTHI PANDIMEENA N |

|     |         |                     |
|-----|---------|---------------------|
| 68. | 2019C31 | SHALINI E           |
| 69. | 2019C32 | SHANMUGAPRIYA M     |
| 70. | 2019C33 | SHOBANA M           |
| 71. | 2019C34 | SINDHUJA S          |
| 72. | 2019C35 | SIVAKEERTHIKA P     |
| 73. | 2019C36 | SNEHA A             |
| 74. | 2019C37 | SNEKA M             |
| 75. | 2019C39 | SUDARSORNALAKSHMI K |
| 76. | 2019C40 | VAISHNAVI C         |
| 77. | 2019C41 | VASANTHA RUBA J     |
| 78. | 2019C42 | VASUNDHRA D         |
| 79. | 2019C43 | VISHNUPRIA G        |
| 80. | 2019C44 | AFRIN FATHIMA S     |
| 81. | 2019C45 | ROSY PRADEEPA L     |
| 82. | 2019C46 | AJITHA T M          |
| 83. | 2017C01 | AKSHAYA K           |
| 84. | 2017C02 | ANU RATTHIKA S      |
| 85. | 2017C03 | AROCKIA AMRISHA T   |
| 86. | 2017C04 | ASHWINI N S         |

|             |         |                    |
|-------------|---------|--------------------|
| <b>87.</b>  | 2017C05 | BALA KEERTHANA C   |
| <b>88.</b>  | 2017C07 | DIVYA M            |
| <b>89.</b>  | 2017C08 | ELSI S             |
| <b>90.</b>  | 2017C09 | GOMATHI K S        |
| <b>91.</b>  | 2017C10 | HARIHARANI S       |
| <b>92.</b>  | 2017C11 | JAYA DHARSHNI G    |
| <b>93.</b>  | 2017C13 | JEBA SANTHIYA A    |
| <b>94.</b>  | 2017C14 | JENIFER S          |
| <b>95.</b>  | 2017C15 | JERME SNEHA A      |
| <b>96.</b>  | 2017C16 | JEYA PREETHA J     |
| <b>97.</b>  | 2017C17 | JEYASHREE K        |
| <b>98.</b>  | 2017C18 | JULIET J           |
| <b>99.</b>  | 2017C19 | KARTHIGA R         |
| <b>100.</b> | 2017C20 | LAKSHMI PRIYA A    |
| <b>101.</b> | 2017C21 | LAVANYA CHABATTULA |
| <b>102.</b> | 2017C22 | LIPRANCIA MARY P   |
| <b>103</b>  | 2017C23 | MANI MEENA B U     |
| <b>104</b>  | 2017C24 | MATHUMATHI S       |
| <b>105</b>  | 2017C25 | MERCY MAGDALENE P  |
| <b>106</b>  | 2017C26 | MERLIN PRINCY A    |
| <b>107</b>  | 2017C27 | MERLINE PUNITHA S  |
| <b>108</b>  | 2017C28 | MONISHA            |
| <b>109</b>  | 2017C29 | NIVETHITHA A       |



|            |            |                         |
|------------|------------|-------------------------|
| <b>110</b> | 2017C30    | PAVITHRA S(26.12.1999)  |
| <b>111</b> | 2017C31    | PAVITHRA S(01.03.2000)  |
| <b>112</b> | 2017C32    | PHILO SEELI S           |
| <b>113</b> | 2017C33    | PRIYANKA K              |
| <b>114</b> | 2017C35    | RAMA ROHINI B           |
| <b>115</b> | 2017C36    | ROSARY JUANA FERNANDO T |
| <b>116</b> | 2017C37    | SALETH PRABA J          |
| <b>117</b> | 2017C38    | SARALA I                |
| <b>118</b> | 2017C39    | SELCIAH M               |
| <b>119</b> | 2017C40    | SIMLA MARY E            |
| <b>120</b> | 2017C41    | SINDHU K                |
| <b>121</b> | 2017C42    | SINDHUJHA S             |
| <b>122</b> | 2017C43    | SIVA DHARSHANI C        |
| <b>123</b> | 2017C44    | SMITHAH LILLY M S       |
| <b>124</b> | 2017C45    | SUBALAKSHMI M           |
| <b>125</b> | 2017C46    | SUMITHRA T              |
| <b>126</b> | 2017C48    | SUSANNA OPPILAL M       |
| <b>127</b> | 2017C49    | SUSHMA M                |
| <b>128</b> | 2019MSCC02 | ASVITHA HARINI PV       |
| <b>129</b> | 2019MSCC03 | BAGAVATHI O             |
| <b>130</b> | 2019MSCC04 | BEULA ESTHER P          |
| <b>131</b> | 2019MSCC05 | BRISKY I MS             |
| <b>132</b> | 2019MSCC06 | CHRISTINA A             |
| <b>133</b> | 2019MSCC07 | CHRISTIYA J             |

|            |            |                            |
|------------|------------|----------------------------|
| <b>134</b> | 2019MSCC08 | DEEPA S                    |
| <b>135</b> | 2019MSCC10 | EBCIBA DENIYAL P           |
| <b>136</b> | 2019MSCC12 | GAYATHRI DEVI N            |
| <b>137</b> | 2019MSCC13 | IRUDAYA RINCI J            |
| <b>138</b> | 2019MSCC14 | IRUTHAYA ANTONY AUXILIYA A |
| <b>139</b> | 2019MSCC15 | JENCY A                    |
| <b>140</b> | 2019MSCC17 | NANDHINI G                 |
| <b>141</b> | 2019MSCC18 | NIVETHA A                  |
| <b>142</b> | 2019MSCC19 | NIVETHA R                  |
| <b>143</b> | 2019MSCC20 | PRABHANATHI S              |
| <b>144</b> | 2019MSCC21 | PRINCY A                   |
| <b>145</b> | 2019MSCC22 | PRITHIKA R                 |
| <b>146</b> | 2019MSCC23 | SIVAGAMI G                 |
| <b>147</b> | 2019MSCC24 | SOWMIYA M                  |
| <b>148</b> | 2019MSCC25 | SRIJAA R                   |
| <b>149</b> | 2019MSCC27 | SUREKA K                   |
| <b>150</b> | 2019MSCC28 | VENUS MARY J               |
| <b>151</b> | 2019MSCC29 | YAMUNA R S                 |
| <b>152</b> | 2019MSCC30 | YASOTHAI N                 |
| <b>153</b> | 2019MSCC31 | JENESH J                   |