



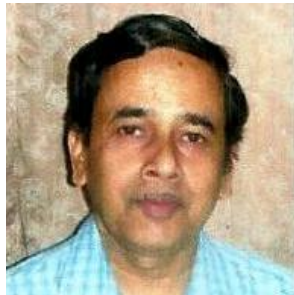
UNIVERSITY OF CALCUTTA

FACULTY ACADEMIC PROFILE/ CV

Full name of the faculty member: Dr. Subrata Kumar Midya

Designation: Professor

Specialisation : Atmospheric Physics and Electronics



Contact information:

Department of Atmospheric Science.

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Academic qualifications:

College/ university from which the degree was obtained	Abbreviation of the degree
Narendrapur Ramakrishna Mission Residential College (C.U.)	B.Sc.(Hons.)
University of Calcutta	M.Sc.(Electronics Special)
Jadavpur University	Ph.D.

Positions held/ holding:

Now working as Professor and PhD convenor of Department of atmospheric science.

Research interests:

- Airglow Emissions, Ozone Depletion, Solar Physics, Interstellar Molecules, Earthquake and Tropospheric Phenomena

Research guidance :

Number of researchers awarded /Ph.D degrees : 6

Number of researchers pursuing M.Phil/ Ph.D : 7

Select list of publications:

- a) *Journals: Annex.1*

- b) *Books/ book chapters: Annex. 2*

- c) *Conference/ seminar volumes: Annex. 3*

Membership of Learned Societies:

1. Indian Association for the Cultivation of Science
2. Indian centre for Space Physics
3. Indian Physics Teachers' Association

Invited lectures delivered: Annex. 4

Awards:

National Scholarship (Higher Secondary Examination, 1975)

Other notable activities:

1. Automatic Weather Station and Lightning Detector is set up on the roof of Department of Atmospheric Science.
2. Very Low Frequency (VLF) signal receiver is set up on the roof of Department of Atmospheric Science.

3. Reviewer of different National and International journals
4. Thesis Examiner
5. Post-doctorate fellow
 - (i) Dr.Sujay Pal ,joined as Kothary Fellow
 - (ii) Dr. Goutami Chattopadhyay joined as woman scientist

Annex.1

LIST OF PUBLICATIONS OF DR. S.K.MIDYA

(Airglow Emissions, Ozone Depletion, Solar Physics, Interstellar Molecules, Earthquake and Tropospheric Phenomena)

(International Journal-81, National Journal -43, Total-124)

124. Das B, Sarkar S, Haldar P.K. **Midya S. K.** and Pal S (2020) D-region ionospheric disturbances associated with the Extremely Severe Cyclone Fani over North Indian Ocean as observed from two tropical VLF stations, *Adv.Space.Res.* **Impact factor-1.746 , In Press**
123. Mukherjee T, Vinoj V, **Midya S. K.**, Puppala S.P. and Adhikary B (2020) Numerical simulations of different sectoral contributions to post monsoon pollution over Delhi, *Heliyon*, **6,1-13 Impact factor-1.650** <http://doi.org/10.1016/e03548>
122. Pal S, Sarkar S, **Midya S. K.** and S Hobera (2020) Low latitude VLF radio signal disturbances due to the Extremely Severe Cyclone Fani of May, 2019 and associated mesospheric response, *JGR Space Physics* , **Impact factor-2.799, In Press**
121. Das P.K., Das R., Das D.K., Midya S.K., Bandyopadhyay S and Raj U (2020) Quantification of agricultural drought over Indian region: a multivariate phenology-based approach, *Natural Hazards*, **101** 255-274. **Impact factor-2.799**
120. Das P.K., Das D.K., **Midya S.K.**, Bandyopadhyay S and Raj U (2020) Spatial analysis of wet spell probability over India (1971-2005) towards agricultural planning. *Atmosfera*, **33(1)** 19-31. **Impact factor-1.520**
119. Das A, Pal Sujay and **Midya S. K.** (2020) Effect of Pre-Monsoon Lightning Activity on surface NO_x and O₃ Over GWB *JISUJMR* 1(1) 91-100.
- 118 **Midya S. K.**, Pal S, Dutta R, Gole P.K., Chattopadhyay G, Karmakar S, Saha U and Hazra S (2020) A preliminary study on pre-monsoon summer thunderstorms using ground-based total lightning data over Gangetic West Bengal, *Ind. J Phys.*, **Impact factor-1.407, DOI 10.1007/s12648-020-01681-1**

117. Mukherjee T, Vinoj V, **Midya S. K.** and Adhikary B (2020) Aerosol radiative impact on surface ozone during a heavy dust and biomass burning event over South Asia *Atmospheric Environment*, **223** 117-201 **Impact factor-4.3**

116. **Midya S. K.**, Dey S.S., Das A., Dutta S and Das G.K. (2020) Role of Premonsoon Meridional SST Gradient of North Indian Ocean and frequency of Typhoon Activities on Monsoon Depression over Bay of Bengal *Ind.J, Phys* 94, 417-423 **Impact factor-1.407**

115. Chattopadhyay G, **Midya S. K.** (2020) Test for stationarity and subsequent neurocomputing based prediction of the total ozone time series over Kolkata, India in univariate framework, *URSI GASS*, **1**

114. **Midya S. K.** (2019) Lightning and our World *Jnan-O-Bijnan* .72(6) 320-321.

113. Pal S and **Midya S. K.** (2019) A study of total lightning characteristics of thunderstorms over Gangetic West Bengal *URSI AP-RASC* 9-15.

112. Chattopadhyay S, **Midya S. K.** Chattopadhyay G (2019) MLP based Predictive model for surface ozone concentration over an urban area in the Gangetic West Bengal during Pre-monsoon season *J. Atmos. Solar Terr. Phys.* **184** 57-62. **Impact factor-1.503**

111. Das P., **Midya S. K.**, Das D, (2018) Fore-warning of early season agricultural drought condition over Indian region - A fractional wetness approach *J. Geocarto International*, **Impact factor-1.56**
<http://doi.org/10.1080/10106049.2018.1533590>. vol.35,(6)

110. Gole P.K., **Midya S. K.**, Panda P and Nandi A (2018) Intensity variation of OI 557.7 nm and OI 630.0 nm lines before M5.0 and greater earthquakes in Tokyo region, Japan for 1979 to 1990 *Atmospheric and Oceanic Optics* **31(6)** 670-677. **Impact factor-.87**

109. A. Das, **Midya S.K.**, and Metya A (2018) Trend of Variable Component of 10.7 cm Solar flux during the period 1950-2014 and its Association with the Occurrence of Major Earthquakes. *Mausam* **69(3)** 443-448 **Impact factor-0.515**.

108. Chattopadhyay S, Chattopadhyay G and **Midya S.K.** (2018) Shannon entropy maximization supplemented by neurocomputing to study the consequences of a severe weather phenomenon on some surface parameters, *Natural Hazards* , **Impact factor-2.799** [HTTP://doi.org/10.1007/s11069-018-3298-8](http://doi.org/10.1007/s11069-018-3298-8).

107. Sarkar D, Das P, Jana P.K. and **Midya S.K.** (2017) Variation in Tropospheric Ozone Concentrations over different stations in India, *Zenith International J. Multidisciplinary Res.* 7(9)45-64 (*ISSN 2231-5780*)

106. Das P, **Midya S.K.** , Das D.K., Rao G.S. and Raj U (2017) Characterizing Indian Meteorological Moisture Anomaly Condition Using Long-term (1901-2013) Gridded Data - A Multivariate Moisture Anomaly Index (MMAI) Approach, *Int.J. Climatology* **Impact factor-3.609**, DOI:10.1002/joc.5359

105. Ghosh S, Sasmal S, **Midya S.K.**, Chakrabarti S.K. (2017) Unusual Change in Critical Frequency of F 2 Layer during and Prior to Earthquakes Open journal of earthquake Research 6,,191-203.

104. Saha U, Singh D., **Midya S.K.**, Singh R.P., Singh A.K. and Kumar S (2017) Spacio-temporal variability of lightning and convective activity over South/South-East Asia with an emphasis during El Nino and La Nina *J. Atmos. Res.* **Impact factor-4.676** <https://doi.org/10.1016/j.atmosres.2017.07.005>

103. Goswami S and **Midya S.K.** (2016) Variation of Rate of Change of Tropospheric Ozone with Rainfall during different seasons over Gangetic West Bengal, India *Contemporary Research In India* 6(2),1-6 (*ISSN 2231-2137*)

102. Das G.K., Debnath G.C., D. Pradhan and **Midya S.K.** (2016) Diagnostic Study of Deep depression over Northwest Bay of Bengal in June 2011 : A case Study. *Vayu Mondal* 42(1),43-55 (*ISSN 0970-1397*)

101. **Midya S.K.**, Das A., Karmakar N., (2016) Association of occurrence of Major earthquakes throughout the Globe with variable component of the Green line FE XIV 530.3 nm during 1950-2014. *Ind. J. Phys.* 90(12), 1341-1345 *DOI 10.1007/s12648-016-0875-0* (**Impact factor-1.785**, *ISSN 0973-1458*)

100. Mukherjee T., Das A, **Midya S.K.**, (2016) Splitting of ozone hole over Antarctica ~ its effect on total column ozone and its possible causes, *Mausam* 67(4)939-954. (**Impact factor-0.203**, *ISSN 0252-9416*)

99. **Midya S. K.**, Goswami S., Sengupta K. (2016) The effect of 10.7 Cm solar flux on monsoon rainfall over India *J Ind Geo. Union. J Ind Geo. Union.* 20, 558-565 (**Impact factor-0.313**, *ISSN No.-0257-7968*).

98. Ghosh D, Mukherjee T, **Midya S.K.**, Sarkar U. (2015) Variability of Surface Ozone with Cloud Coverage over Kolkata, India *J. Earth System Science, J. Earth System Sci.*, 124, 303-319 (**Impact factor-0.79**, *ISSN 0253-4126*) .

97. **Midya S. K.**, Ghosh S., Ganda S.C. and Das G. K. (2015) Role of Biogenic Hydrocarbon on the Variability of Total Rainfall Amount over Sundarban, Kaziranga and Gir Forests *J Ind Geo. Union.* 19, 454-459(**Impact factor-0.313**,ISSN No.-0257-7968).

96. Goswami S. and **Midya S. K.** (2016) Seasonal Variation of daily total column ozone (TCO), it's depletion and formation on Surface Ozone over Chennai,India *J Ind Geo. Union.* 20, 101-111 (**Impact factor-0.313** ,ISSN No.-0257-7968) .

95. **Midya S. K.** and Gole P.K. (2014) Variation of regional b value of Gutenberg-Richter equation before and after large earthquakes in some earthquake prone zones around the world *Ind.J,Phys.* **88(12)**, 1227-1234 (**Impact factor-1.785**, ISSN 0973-1458) DOI 10.1007/s12648-014-0588-1.

94. **Midya S. K.** and Gole P.K.. (2014) Trend of major earthquakes during the period 1900-2011 and its association with some solar and geomagnetic parameters. *Ind.J,Phys.* **88(1)**, 1-4 (**Impact factor-1.785**, ISSN 0973-1458) DOI 10.1007/s12648-013-0369-2.

93. **Midya S.K.**, Das G .K. and Sarkar A(2013) The relationship between wet component of atmospheric refractivity and movement & landfall of tropical cyclone in the Bay of Bengal region *Meteorology and Atmos.Phys.(Germany)* **121**, 153-159.

(**Impact factor-1.327**,ISSN 0177-7971) .

92. Saha U, Maitra A, **Midya S.K.** and Das G .K. (2014) Association of Thunderstorm Frequency with rainfall occurrence over an Indian Urban Metropolis. *J.Atmos.Res.* **138**, 240-252 (**Impact factor-2.364**,ISSN 0169-8095).

91. **Midya S.K.**, Dey S.S. and Chakraborty B., (2012) Variation of TOC (Total Ozone Column) during tropical cyclone over Bay of Bengal and Arabian Sea *Meteorology and Atmos.Phys.(Germany)* **117**,63-71. (**Impact factor-1.327**,ISSN 0177-7971)

90. **Midya S.K.** and Ghosh D, (2014) Associating an ionospheric parameter with major earthquake occurrence throughout the world. *J. Earth System Sci.*, 123, 63-71 (**Impact factor-0.79**, ISSN 0253-4126)

89. **Midya S. K.** and Goswami S. (2013) Seasonal Variation of daily total column ozone (TCO) and its depletion and formation role on surface temperature over Ahmedabad (23001'N, 72039'E) . *Ind.J,Phys.* **87**, (10) 953-961 (**Impact factor-1.785**, ISSN 0973-1458)

88. **Midya S. K.**, Ghosh D, Das G .K. and Sarkar H (2013) Study of atmospheric refractivity prior to squall onset and its strong association with surface temperature and relative humidity over Kolkata (22°34'N, 88°22'E) . *Ind.J,Phys.* **87**, (9) 847-854

(**Impact factor-1.785**, ISSN 0973-1458).

87. P K Jana, D Sarkar, D K Saha and **S K Midya**, (2012) Effect of cloud occurrences on tropospheric ozone over Alipore (22.52°N, 88.33°E), India. *J. Earth System Sci.*, **121(3)** 711-722. (**Impact factor-0.941**, ISSN 0253-4126)

86. P K Jana, S Goswami and **S K Midya** (2012) Short-term tropospheric ozone trend in India. *Ind.J,Phys.* **86(11)** 951-960 (**Impact factor-1.785**, ISSN 0973-1458)

85. Jana P.K.,Bhattacharjee S and **Midya S. K.**, (2013)Equatorial, Tropical and Antarctic Ozone Depletion and Their Correlation with Relative Sunspot Numbers *Int. J. Res. Chem. Environ.* .**3** (3) (48-61), ISSN 2248-9649.

84..Mukherjee T, **Midya S. K.** and Sarkar H (2013) Variation of Total Column Ozone (TCO) during the time of Landfall of Extratropical Cyclone.*The Pacific Journal of Science and Technology (Akamai)* **14** (2) 129-134. (ISSN No.-1551-7624).

83. **Midya S.K.**,Sarkar H,Sarkar S, Maity D and Ghosh M. (2012) Sharp Decrease of Attenuation of 183.31GHz Water Molecule Absorption Line Associated with Nor'wester over Kolkata- may be one possible method of forecasting Nor'wester. –*Mausam* **63(2)**, 219-222. (**Impact factor-0.203**, ISSN 0252-9416)

82. **Midya S. K.** and Panda P (2013) Study of major earthquakes (Magnitude ≥ 6 Richter Scale)with Cp index during the period 2001-2007 *The Pacific Journal of Science and Technology (Akamai)* **14** (1) 586-592. (ISSN No.-1551-7624)

81. Ganda S.C. and **Midya S.K.** (2012) Comparison of Long Term Rainfall Trends on Urban and Nonurban Regions of Indian Land Mass and Its Probable Implication *J Ind Geo. Union.* **16(2)** 37-40. (**Impact factor-0.313**, ISSN No.-0257-7968)

80. P K Jana, S Goswami and **S K Midya**, (2012) Relation between tropospheric and stratospheric ozone at Thumba (8.5° N, 77°E) and Bangalore (13°N, 77.5°E), India and its effect on environment, *Ind.J,Phys.* **86(9)** 769-775 (**Impact factor-1.785**, ISSN 0973-1458)

79. Das G K, **Midya S K**, Debnath G. C.and Roy S N. (2012) The relationship between geopotential height and movement & landfall of tropical cyclone in the Bay of Bengal region *Mausam* **63(3)** 469-474. (**Impact factor-0.203**, ISSN 0252-9416)

78. **Midya S.K.**, T.Mukherjee , Dey, S.S DasG.K. (2012) Variation of total column ozone (TCO) during the time of landfall of tropical cyclone in extratropical region *PJST (Akamai)* **13** (1) 123-130. (ISSN No.-1551-7624).

77. **Midya S. K.** U Saha. Sarkar D. and Jana.P K., Inter-relation amongst the different Atmospheric parameters to estimate Summer Monsoon Rainfall over Gangetic West

Bengal: A Multiple Linear Regression Approach. (2012) *The Pacific Journal of Science and Technology (Akamai)* **13** (1) 131-143. (ISSN No.-1551-7624).

76. G.K.Das, Roy S N. and **Midya S.K.** (2012) A Climatological feature of temperature and heavy rainfall events over Kolkata and its impact on human being, *Mausam* **63(4)** 615-622. (**Impact factor-0.203**, ISSN 0252-9416)

75. **S.K. Midya**, S. Goswami, and H. Sarkar, (2012) Seasonal variation of Daily Total Column Ozone (TCO) and its Formation and Depletion Role on Surface Temperature and Average Rainfall over Dibrugarh, India (27°28'N,94°54'E). *The Pacific Journal of Science and Technology (Akamai)* **13** (1) 689-699. (ISSN No.-1551-7624).

74. U. Saha, **S.K. Midya** , H. Sarkar and G.K. Das, (2012) Sharp Depletion of Absolute Humidity associated with Squall over Kolkata (22°34'N, 88°26'E): A Possible Method of Forecasting Squall, *The Pacific Journal of Science and Technology (Akamai)* **13** (1) 683-688. (ISSN No.-1551-7624).

73. H. Sarkar, **S.K. Midya**, and S. Goswami, (2012) A Comparative Study of Integrated Water Vapor (IWV) and of Attenuation of 94 GHz Signal from Radiometer and Radiosonde Observations during Monsoon Period over Kolkata, India. , *The Pacific Journal of Science and Technology (Akamai)* **13** (1) 197-201. (ISSN No.-1551-7624).

72. **S.K. Midya**, H.Sarkar and A.Manna, (2012) Variation of daily ozone with surface temperature over Kolkata AJMBES **3** (4). (ISSN No.-0972-3005).

71. Bhaumik D., Chakraborty J. N. and **Midya S. K.**, (2012) Evening twilight emission of Li 6708Å° at Calcutta *J.Pure and Appl.Phys.* (ISSN No.-44982-89 **Impact factor-.246**)

70. **Midya S.K.** and U Saha. (2011) Rates of change of total ozone column and surface relative humidity: seasonal variation over Dum Dum (22°38'N, 88°26'E) *Int.J.Remote Sensing* **32** (22) 7891-7899. (**Impact factor-1.182**, ISSN No.-0143-1163)

69. **Midya S.K.** and U Saha. (2011) Role of rate of change of TCO (Total Column Ozone) on the prediction of Indian summer monsoon rainfall over Gangetic West Bengal,*Ind.J.Phys.* **85** (10) 1461-1468. (**Impact factor-1.785**, ISSN 0973-1458)

68. **Midya S.K.**, Saha U, Panda P , Kundu A,Chaudhuri A, and Sarkar H. (2011) Variation of Total O₃ Concentration and Rainfall Variation Over Different Stations of India , *The Pacific Journal of Science and Technology (Akamai)* **12**(1) 580-590. (ISSN No.-1551-7624).

67. **Midya S.K.**, Sarkar H. and Saha U (2011) Sharp depletion of atmospheric refractive index associated with Nor'wester over Gangetic West Bengal – may be one possible method of forecasting Nor'wester. *Meteorology and Atmos.Phys.(Germany)* **111**,149-152. (**Impact factor-1.327**, ISSN 0177-7971)

66. Saha U, **Midya S.K.** and Das G.K. (2011) The Effect of the Variable Component of 10.7 cm Solar flux on the Thunderstorm frequency over Kolkata and its Relation with

Ozone Depletion Mechanism, *The Pacific Journal of Science and Technology (Akamai)* **12** (1) 591-597. (ISSN No.-1551-7624).

65. Sarkar H, Das T.K. and **Midya S.K.**, (2011) Solar Microwave Radio Bursts in Relation to SXR Bursts *The Pacific Journal of Science and Technology (Akamai)* **12** (2) 206-216. (ISSN No.-1551-7624).

64. **Midya S.K.**, Dutta A and Panda P. (2011) Association of major Earthquakes (magnitude ≥ 6 Richter Scale) with geomagnetic disturbance index Kp during the period 2001-2007. *Mausam* **62** (2) 245-252. (**Impact factor-0.203**, ISSN 0252-9416)

63. **Midya S.K.**, Ghosh D., Ganda S.C. and Sarkar H, (2011) Seasonal variation of daily total column ozone(TCO) and role of its depletion and formation rate on surface temperature over Dumdum at Kolkata, India. *Ind.J.Phys.* **85**, (8) 1247-1256. (**Impact factor-1.785**, ISSN 0973-1458)

62. **Midya S.K.** and Saha U. (2011) Rate of Change of Total Column Ozone and Monsoon Rainfall — A co-variation with the Variable Component of 10.7 cm Solar Flux during pre-monsoon period, *Mausam* **62**, (1) 91-96. (**Impact factor-0.203**, ISSN 0252-9416)

61. Jana P.K., Saha D K and **Midya S K**, (2010) Effect of cloud on Atmospheric ozone formation over Kolkata, *Ind.J.Phys* **84(4)** 367-375. (**Impact factor-1.785**, ISSN 0973-1458)

60. Jana P.K., Saha I, Sarkar D, Das P and **Midya S.K.** .(2010) Long term O₃ trend and its effect on night airglow intensity of Li 6708A° at Ahmedabad (23N,27.50 E) and Hally Bay(76S,27W), British Antarctic Service Station *Ind. J.Phys.* **84(1)** 41-53. (**Impact factor-1.785**, ISSN 0973-1458)

59. **Midya S.K.**, Sarkar H, Dey S S, Maitra A and Ghosh M. (2010) Sharp Depletion of attenuation of 22.235GHz associated with Nor'wester over Kolkata-May be one possible method of forecasting Nor'wester *Ind.J.Phys*, **84(4)**377-381. (**Impact factor-1.785**,ISSN 0973-1458)
58. Ganda S.C. and **Midya S.K.**(2010) Short term stratospheric ozone trend over Dumdum and it's relation with flare index of Northern Hemisphere, *Mausam* ,**61**,(1)117-120. (**Impact factor-0.203**, ISSN 0252-9416)
57. **Midya S.K.** and Sarkar H. (2007) Variation of stratospheric ozone with relative humidity and sharp depletion of absolute humidity associated with Nor'wester over Calcutta *Ind. J.Phys.* **81** 217-224. (**Impact factor-.381**, ISSN 0973-1458)
56. **Midya S.K.** and Chattopadhyay R. (2006) Evening twilight sodium 5893A⁰ line emission at Calcutta and its typical relation with Astronomical parameters *Ind. J. Radio &space phys.***35** 77-83. (**Impact factor-0.128**, ISSN No.-0367-8393)
55. Chattopadhyay R. and **Midya S.K.** (2006)Airglow Emission-fundamentals of theory, experiments-a review *Ind. J. Phys* **80(2)**115-166. (**Impact factor-0.381** ISSN 0973-1458)
54. Jana P.K, Nandi S.C. & **Midya S.K.** (2004) Percentage Contribution of atmospheric minor constituents on marine lower tropospheric ozone *Ind. J. Radio Space Phys.* **33** 201-205. (**Impact factor-0.128**, ISSN No.-0367-8393)
53. **Midya S.K.**, Chattopadhyay R. and Pal. C.M. (2004) O16300A⁰ nightglow emission at Calcutta and its verification by Barbier's equation in terms of solar flare index *Ind. J. Phys.* **78(B)** (12)13 09-1312. (**Impact factor-1.785**, ISSN 0973-1458)
52. Chattopadhyay R. **Midya S.K.** and De U.K. (2003) Stastical analytical study on the seasonal correlation of different solar parameters and O16300A⁰ line intensity at Calcutta and its implications. *Ind. J. Radio Space Phys* . **32** 135-141. (**Impact factor-0.128**, ISSN No.-0367-8393)

51. Chattopadhyay R. and **Midya S.K.**(2002) Latitudinal variation of $6300A^0$ line intensity reviewed in the light of Barbier's equation *Ind. J. Phys* **76B(5)** 627-634. (**Impact factor-0.381**, ISSN 0973-1458)
50. **Midya S.K.**, Tarafder G. and Manna A. (2002)Variation of Seasonal values of $5893A^0$ and $5577A^0$ Night Airglow Intensities and Ozone Concentration at Calcutta *Czech.J.Phys.***52(7)** 883-891. (**Impact factor-4.637**, ISSN 0011-4626)
49. **Midya S.K.** and .Jana P.K. (2002).Atmospheric ozone depletion and its effect on environment *Ind. J. Phys* **76B(2)** 107-138. (**Impact factor-0.381**, ISSN 0973-1458)
48. Tarafder G, **Midya S.K.** and Manna A.(2002)Co –variation of Monthly Mean concentration of Stratospheric Ozone with Monthly Mean Intensity of 589.3nm night airglow emission at Calcutta, *J.A.S.C.E.* **.XX No.1**, 3-7.(ISSN 0972-3005)
47. **Midya S.K.**, Sarkar H. and Manna A. (2001) Antarctic Ozone depletion - its effect on the variation of $Li6708A^0$ emission line intensity at Mc. Murdo and Hally Bay. *Czech.J.Phys.***51 (6)**609 -614. (**Impact factor-4.637**, ISSN 0011-4626)
46. **Midya S.K.**, Maitra S.N. and Tarafder G. (2001) A study of the variation of daily ozone concentration at Hally Bay in Antarctica with daily solar UV flux by. *Ind. J. Phys.* **73 (B)** (1) 13 -18. (**Impact factor-0.381**, ISSN 0973-1458)
- 45.**Midya S.K.** ,Jana P..K. and De U.K. (2001) Short-term Ozone trend in India, *Ind.J. Radio and Space Phys.***30**, 176-180. (**Impact factor-0.128**, ISSN No.-0367-8393)
44. Bhaumik D., Chakraborty J. N., **Midya S. K.** and Chakraborty S. (2000)Airglow emission of OH(7,2) and OH(8,3) band emission during night at Calcutta. *Ind.J.Phys.* **74B(6)**,411-414. (**Impact factor-0.381**, ISSN 0973-1458)
- 43 . **Midya S.K.**, Ganda S. C.and Sahu S.N. (2000) Percentage Contribution of different stratospheric compounds on depletion of Ozone, *Ind.J.Phys.* **74B(5)**,337-339. (**Impact factor-0.381**, ISSN 0973-1458)

42. Maitra S.N., **Midya S.K.**, Tarafdar G., Bhattacharyya S and Chatterjee S (2000) Antarctic ozone sink, its co- variation with solar parameter and possible effects on Environment A.J.M.B.E.S. **2**, 105-112. (ISSN No.-0972-3005).

41. Chattopadhyay R., **Midya S.K.** and De U.K.(2000) The effect of Solar flare index on seasonal variation of 6300A night airglow emission at Calcutta and its Stastical Inferences *Ind.J.Phys.***74B**(2),133-138. (**Impact factor-0.381**, ISSN 0973-1458)

40. **Midya S.K.**, Ganda S. C. and Sahu S.N. (1999) Antarctic O₃ depletion and its correlation with relative sunspot numbers, *Mausam* **50**(4)403-406. (**Impact factor-0.203**, ISSN 0252-9416)

39. **Midya S.K.**, Tarafdar G., Sen A..K. and Ghosh S.N. (1999) The effect of solar flare index on the seasonal variation of 5577A line intensity at Calcutta , *Ind.J.Phys.***73B**(5),739-743. (**Impact factor-0.381**, ISSN 0973-1458)

38. **Midya S.K.**, Jana P.K. and De U.K.(1999) Antarctic O₃ depletion and its correlation with solar flare numbers, *Ind.J.Phys.* **73B**, 605-613. (**Impact factor-0.381**, ISSN 0973-1458)

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36. **Midya S.K.**, Chattopadhyay R. and Pal C.M.(1999) The Effect of Relative Sunspot Numbers, Solar Flare Numbers and Variable Components of 10.7 cm Solar Flux on the Seasonal Variation of 6300A line at Calcutta, *Earth Moon and Planets (Netherlands)***77**, 93-97. (**Impact factor-0.667**, ISSN No.-0167-9295)

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22.**Midya S.K.** and Midya D.(1995)Interrelation between monthly mean values of Ionospheric and Solar parameters and their effect on seasonal variation of 5577A line emission at Calcutta, *Earth Moon and Planets (Netherlands)*71,1-7. (**Impact factor-.667**, ISSN No.-0167-9295)

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16. **Midya S.K.**, Tarafdar G and Das T.K. (1993) Evening and Morning Twilight Airglow Emissions at Calcutta and Allahabad, *Earth Moon and Planets (Netherlands)* **63** 199-207. (**Impact factor-.667**, ISSN No.-0167-9295)
15. Ghosh S.N., **Midya S.K.** (1993) Altitudinal and Latitudinal Variation of Na 5893A Airglow Emission, *Ind.J.Phys.* **67B**, 443-448. (**Impact factor-0.381**, ISSN 0973-1458)
14. **Midya S.K.**, Ghosh S.N. and Chattopadhyay R.(1993) Sodium 5893A° Airglow Emission during Evening Twilight at Calcutta, *J. Bir. Planet.* **7**,24-29. (ISSN No.-34954-78).
13. **Midya S.K.**, Datta T and Ghosh S.N. (1992) Antarctic O₃ decline and its effect on Na5893A Night Airglow Emission, *J.Birla Planetarium* **6**,2-5. (ISSN No.-34954-78).
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11. Ghosh S.N., **Midya S.K.** and Mahato G.N. (1991) Interstellar Molecules –Past and Present, *J.Ind.Astro.Soc.* **4**, 109-114. (ISSN No.-0970-7778)
10. Ghosh S.N., **Midya S.K.** and Chakraborty J.N.(1990) Night Airglow Emissions at Calcutta *Ind.J.Phys.* **64B**, 10-21. (**Impact factor-0.29**, ISSN 0973-1458)
9. Ghosh S.N. and **Midya S.K.** (1989) Seasonal Variation of 5577A° and 5893A Night Airglow Emission at Calcutta *Ind.J.Phys.* **63B**, 415-420. (**Impact factor-0.381**, ISSN 0973-1458)
8. Ghosh S.N. and **Midya S.K.** (1989) Latitudinal Variation of 5577A° Night Airglow Emission, *Ind.J.Phys.* **63B**,212-216. (**Impact factor-0.381**, ISSN 0973-1458)

7. Ghosh S.N. and **Midya S.K. (1989)** 5577A° Night Airglow Emission from Barth's and Chapman's Mechanisms, *Ind. J. Radio and Space Phys.* **18**,33-35. (**Impact factor-0.128**, ISSN No.-0367-8393)
6. Ghosh S.N. and **Midya S.K. (1988)** AirglowIII, *J.Ind.Astro.Soc.* **1**, 39-70. (ISSN No.-0970-7778)
5. Ghosh S.N. and **Midya S.K. (1985)** Airglow II, *J.Ind.Astro.Soc.* **6**, 1-13. (ISSN No.-0970-7778)
4. Ghosh S.N., **Midya S.K. (1987)** Evening Twilight Enhancement of Airglow Emission at Calcutta and Covariation of Emissions, *Ind.J. Radio and Space Phys.* **16**, 277-280. (**Impact factor-0.128**, ISSN No.-0367-8393)
3. Ghosh S.N., **Midya S.K. (1986)** Morning Twilight Airglow Emissions at Calcutta, *Ind.J.Phys.* **69B**, 413-417. (**Impact factor-0.381**, ISSN 0973-1458)
2. Ghosh S.N. and **Midya S.K. (1986)** Evening Twilight Enhancement of 5893A° at Calcutta, *Ind.J. Radio and Space Phys.* **15**, 53-56. (**Impact factor-0.128**, ISSN No.-0367-8393)
1. Ghosh S.N., **Midya S.K.** and Purkait S. (1982) Airglow, *J.Ind.Astro.Soc.* **3** 31-45. (ISSN No.-0970-7778)

Seminar Papers

1. **Midya S.K. (2016)** "Association of ionospheric parameter with major earthquake occurrence throughout the world" Invited talk delivered in the National Seminar,2016 organised by Alumni Association NCE Bengal & Jadavpur University on 6.2.2016.
2. Samanta S, **Midya S.K.**, Das G.K. "Attenuation variation of 183.31 GHz water molecule absorption line: A key parameter to estimate monsoon onset and withdrawal" Paper presented in National Space Science Symposium held on 9-12, Feb. 2016.
3. **Midya S.K. (2016)** "Climate Change and Related Perils Before Mankind" Invited talk delivered in the National Seminar, 2016 organised by Serampore College and Bidhan Chandra College on 26.9.2016.

Mukherjee T, **Midya S.K.** Vinoj V, 2016 “Long -term variation of Tropospheric Ozone over Subcontinent: Potential Causes” Paper presented in TROPMET held on 19-21, Dec. 2016.

Annexure-2

Book Articles

1. **Midya S.K.**, Sarkar H. and Manna A. **(2003)** Co-variation of Daily Maximum Temperature and Ozone Concentration over Calcutta, Published in Recent Trends in Astro and Plasma Physics in India,2003(241-242) by Centre for Space Physics, Kolkata.
2. **Midya S.K.** and Jana P.K. **(2003)**Variation of Ozone Concentration Over Antarctica and India, published in Recent Trends in Astro and Plasma Physics in India,2003(243-247) by Centre for Space Physics, Kolkata.
3. **Midya S.K.** Environmental Change and its impact,edited by M.K.Ray,P.Sarkar and S. Biswas **(2006)**(25-46).
4. **Midya S.K.**Dakshanavik, 1389 Vol.3 No.3 Page24-26.
5. **Midya S.K.**Bartaman Sagar, Sarad Sankhya 1389 Page27-28.
- 6.**Midya S.K.**Ogo Satya Sundara Mangalam 1992Vol.6, No.4 Page40-43.
7. **Midya S.K.**Beyond the blues 2010 Page 209-210.
8. **Midya S.K.**Ogo Satya Sundara Mangalam 2011 Page 26.

Annex. 3

SYMPOSIUM , SEMINER PAPERS

1. Ghosh S.N., **Midya S.K. (1989)** New Interstellar Molecules, Paper presented at the

International Symposium on “Supernovae and High Energy Astrophysics”, 27-29 Dec. 1989, held at VARC, Calcutta.

2.. **Midya S.K.**, Sengupta K., Bhaumik D., Chattopadhyay R and Chakraborty J.N. **(1990)** Latitudinal Variation of 5893A^o Night Airglow Emission, Paper presented at the Space Science Symposium, 5-9 March, 1990, held at Nagpur University.

3. Bhaumik D., Chattopadhyay R , Chakraborty J.N. **Midya S.K.**, Sengupta K. and Ghosh S.N. **(1990)** Seasonal Variation of OH(8,3) Airglow Band Intensity Distribution, Paper accepted at the International Symposium on Optical and Radio Remote Sensing of the Atmospheric Environment, 24-26 Oct. 1990, held at NPL, Delhi.

4. Ghosh S.N., **Midya S.K. (1990)** Origin of Sodiumits compound, Paper accepted at the International Symposium on Optical and Radio Remote Sensing of the Atmospheric Environment, 24-26 Oct. 1990, held at NPL, Delhi.

5. **Midya S.K.** and Datta T. (1991) Antarctic O₃ decline and its effect on Na5893A⁰ Airglow Emission, Paper presented at the Symposium on “The Sun and our Environment” Feb7-8,1991 held at Birla Planetarium, Calcutta.

6. **Midya S.K.**, Datta T. and Ghosh S.N. (1992) The 1st peak of 5893A⁰ Airglow Emission during Evening Twilight at Calcutta and its correlation with different astronomical parameters in Indian Panchang, Paper

presented at the Symposium on “Rectification of Astronomical Parameters, published in Indian Panchangs, 12-13 Feb. 1992, held at Birla Planetarium, Calcutta.

7. Ghosh S.N., **Midya S.K. (1992)** Atmospheric O₃ Depletion, Antarctic O₃ Hole and its contribution to atmospheric phenomenon, Paper presented at the Seminar on “Differential Geometry, Relativity and Astrophysics, 12-14 Nov.1992, held at Birla Planetarium, Calcutta.

8. **Midya S.K.**, and Ghosh S.N.(1992) Seasonal Variation of 6300Å^o Night Airglow Emission at Calcutta and other stations and their co variation with 5577Å^o line, Paper presented at the Seminar on “Differential Geometry, Relativity and Astrophysics, 12-14 Nov.1992, held at Birla Planetarium, Calcutta.

9. Das T.K., Tarafdar G , **Midya S.K** and Sen A K (1993) Frequency Bands of Radio Bursts for the Solar Flare Diagnostics Paper presented at the International Symposium on Astrophysics and Cosmology held at the Saha Institute of Nuclear Physics, Calcutta, Dec.1993.

10. **Midya S.K.**, Chattopadhyay R and Ghosh S.N. (1995) Correlation between 6300Å^o line intensities and solar activities, Paper presented at the International Symposium on “M.N.Saha, S.N.Bose and N.R.Sen: Contribution to Astrophysics and Impact,” held at Calcutta, Nov.1995.

11. **Midya S.K.**, Jana P.K and Ghosh S.N. (1995) Antarctic O₃ depletion and its correlation with solar flare numbers Paper presented at the International Symposium on “M.N.Saha, S.N.Bose and N.R.Sen: Contribution to Astrophysics and Impact,” held at Calcutta, Nov.1995.

12. **Midya S.K.** and Ghosh S.N. (1995) Airglow emissions and their excitation mechanisms, Paper presented at the International Symposium on “M.N.Saha, S.N.Bose and N.R.Sen: Contribution to Astrophysics and Impact,” held at Calcutta, Nov.1995.

13. **Midya S.K.** (2000) Airglows in Calcutta Area, Paper presented at Space Science Symposium held at Narendrapur, Calcutta, 29th Mar.2000.

14. **Midya S.K. (2001)** Airglow research over India, Paper presented at Space Science Symposium held at Birla Planetarium, Calcutta, 27-28 Mar.2001.

15. **Midya S.K., Sarkar H. and Manna A. (2003)** Co-variation of Daily Maximum Temperature and Ozone Concentration over Calcutta, Published in Recent Trends in Astro and Plasma Physics in India,2003(241-242) by Centre for Space Physics, Kolkata.

16. **Midya S.K. and Jana P.K. (2003)**Variation of Ozone Concentration Over Antarctica and India, published in Recent Trends in Astro and Plasma Physics in India,2003(243-247) by Centre for Space Physics, Kolkata.

17. **Midya S.K. (2006)** Participated in the International Seminer on “Development of Language Education”organized by University of Calcutta in connection with the Post-Centenary Golden Jubilee Celebration and held at Serampore College on 24th and 25th Nov.2006.

18. **Midya S.K. (2007)** Participated in UGC sponsored National Seminar on “ Perspectives in Nuclear Physics “ organized by Dept. of Phys., R.K.Mission Vidyamandira, on 22nd Feb. 2008.

19. **Midya S.K. (2010)** Participated in BHAR Seminer on Atmospheric Sciences during 5-6 Oct.,2010 at the Institute of Radio Physics & Electronics, University of Calcutta.

20. **Midya S.K. (2010)** Participated in the workshop on Atmospheric and Space Sciences during 23-24 Nov.,2010 at the Institute of Radio Physics & Electronics, University of Calcutta.

21. G.K.Das and **Midya S.K. (2011)** The relation between geopotential height and movement and landfall of tropical cyclone in the Bay of Bengal region during post monsoon season. Paper presented in INEMREC.

22. S. samanta, S.K. Midya and G.K. Das (2016) Attenuation variation of 183.31 GHz water molecule absorption line: A key parameter to estimate monsoon onset and withdrawal. Paper presented in NSSS, 2016.

Annex. 4

Invited talks

1. **Midya S.K. (2000)** Greenhouse effect and ozone holes- Invited talk delivered at seminar on Toxic Waste, Greenhouse Effect and Ozone Holes at Indo-German Association at Max Mueller Bhavan on 21st September,2000.
2. **Midya S.K.(2004)** Ozone and its effect on our environment- Invited talk delivered at U.G.C. sponsored seminar on development of awareness of students about environmental pollution through transition of Secondary Curriculum at Institute of Education(P.G.)for woman, Chandannagore, Hooghly on 19th March 2004.
3. **Midya S.K. (2004)** Ozone hole and our environment- Invited talk delivered at U.G.C. and, Dept. of Science and Technology, Gov. of W.B. sponsored seminar on “Environmental changes and its Impact” at Bangabasi Morning College on 20th March ,2004.
4. **Midya S.K. (2006)** Change of our environment- Invited talk delivered at Palli Bharati,Bagnan on 12th February,2006.
5. **Midya S.K. (2010)** - Invited talk delivered at seminar on the CTE Orientation Programme organized by R.K.Mission Sikshanamandira on 4.9.2010.
6. **Midya S.K. (2016)** - Invited talk delivered at seminar on Association of Ionospheric parameter with major earthquake occurrence throughout the world at Jadavpur University.
7. **Midya S.K. (2016)** - Invited talk delivered at national seminar at serampore College on Climate Change impending Perils before mankind on Sept.26,2016.
8. **Midya S.K. (2019)** - Invited talk delivered at Sursuna College on Effect of Climate Change on mankind on March.25,2019.

9. **Midya S.K. (2019)**- Invited talk delivered at Tripura University on lightning and Thunderstorm on Sept.12-14,2019.

10. **Midya S.K. (2019)** - Invited talk delivered at National Conference on Severe Weather(NCSW-2019,17.3.2019-20.3.2019) at Bose Institute,Kolkata on March.19,2019.