

Supplement:

The Figure and Table supplementary materials and process code "CARS_plot_publication.R".

Figure 2: generated by R script "CARS_plot_publication.R" with the input file "Total_VKT.csv" and "numbers_of_vehicle.csv"

Figure 3: generated by R script "CARS_plot_publication.R" with four files "EmisFact_by_YR_SPD.csv", "EmisFact_by_YR_SPD_25.csv", "EmisFact_by_YR_SPD_0005.csv", "EmisFact_by_YR_SPD_0_10.csv"

Figure 4: generated by CARS_plot_publication with file "avgSpeedDistribution_rev_05_CTWv2"

Figure 8: generated by R script "CARS_plot_publication.R" with the input file "CARS_CAPSS.csv"

Figure 9: generated by R script "CARS_plot_publication.R" with the input file "Pollutant_Total_Emis_by_Road_CTWv2_SSD.csv" and "Pollutant_Total_Emis_by_Road_CTWv2.csv"

Table 3: generated by R script "CARS_plot_publication.R" with the input file "Pollutant_Total_Emissions_Tons_per_Year_CTWv2.csv", which is form the output data of CARS. The R code can generate the annual emission file "evf_XXX.csv" for individual species XXX. We calculated all numbers in Table 3 in excel table 3.